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MITCHELL BROS. COMPANY, INCORPORATED.

VOL. XII.

CHICAGO, ILLINOIS, AUGUST 15, 1893.

No. 2.

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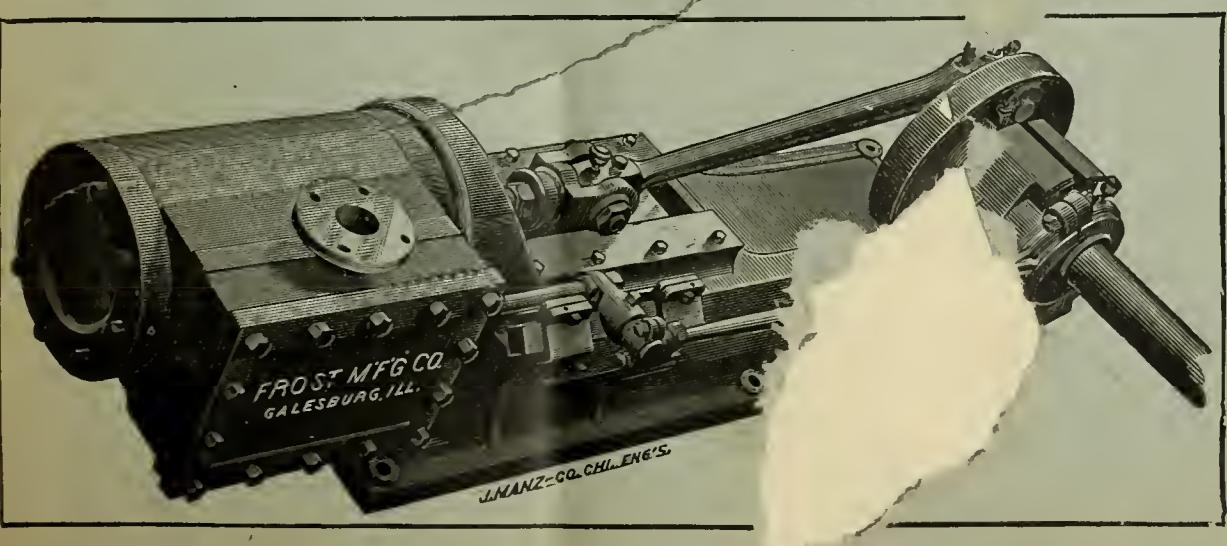
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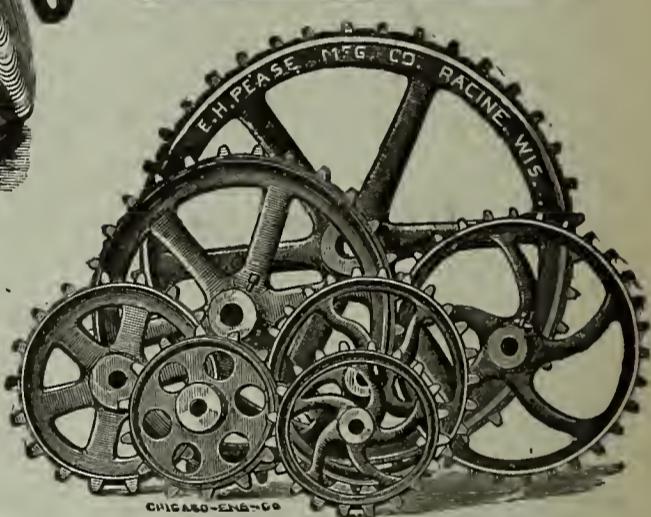
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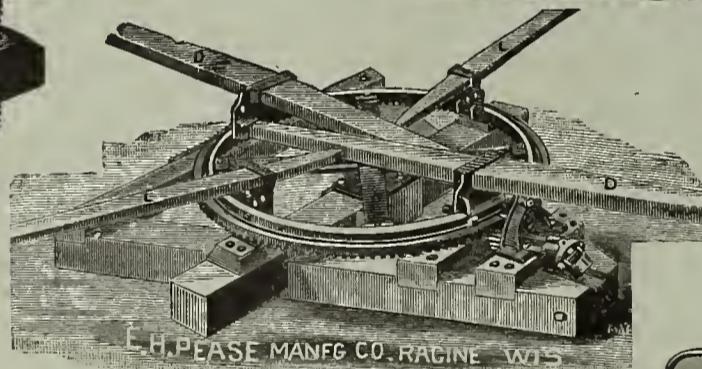
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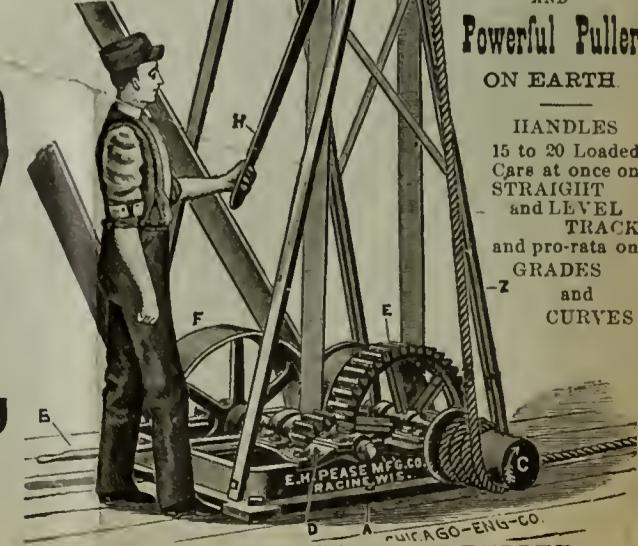
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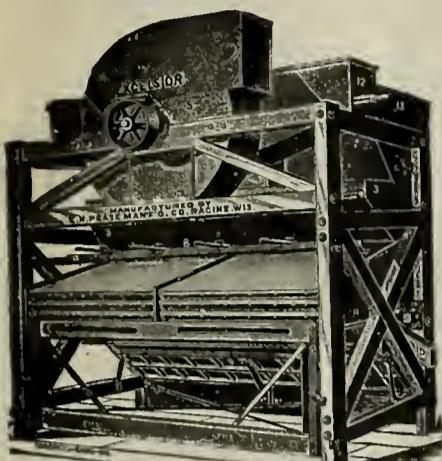
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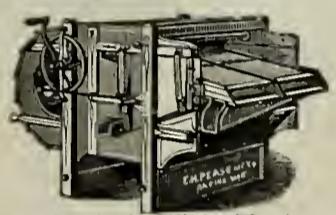
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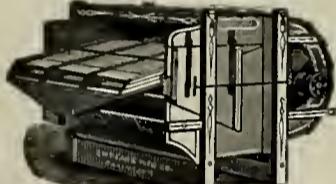
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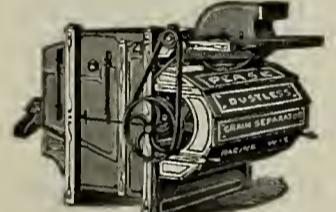
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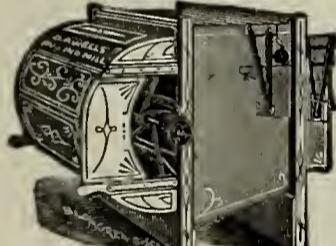
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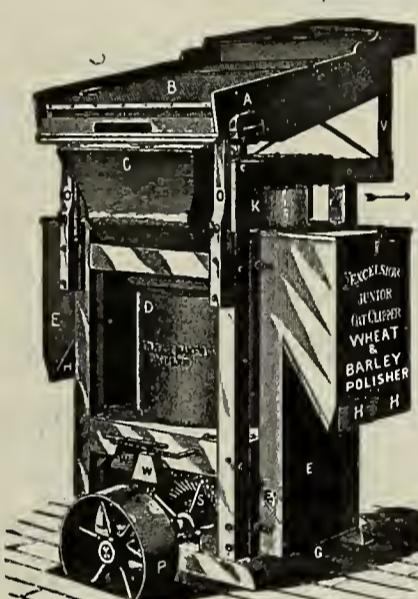
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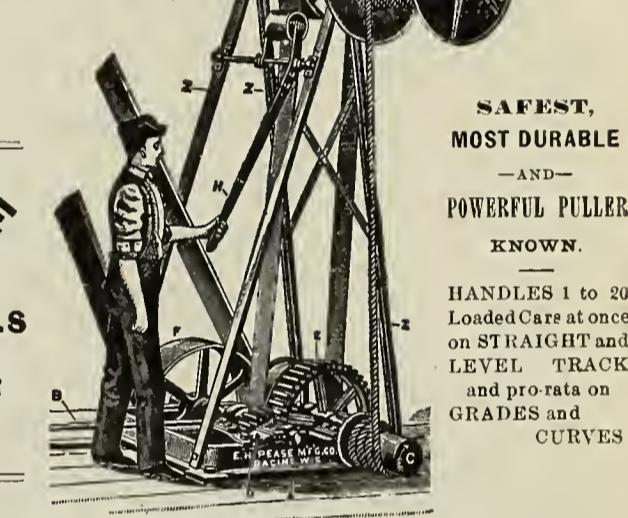
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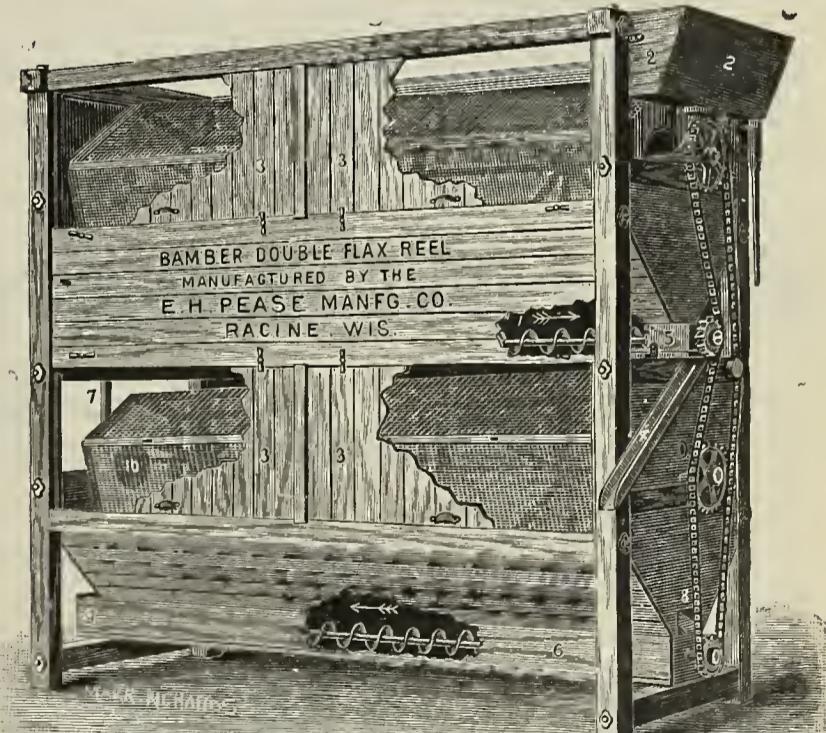
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AMERICAN GRAIN ELEVATORS.

[By E. Lee Heidenreich, member of Scandinavian Engineering Society of Chicago; American Institute Mining Engineers; Western Society of Engineers; read before the International Engineering Congress of the Columbian Exposition.]

The handling of cereals on a vast continent naturally becomes a problem of, not only national, but universal prominence, and ever since the forties it has been considered one of the principal problems encountered by the commercial element of the United States. Realizing the importance of making a *resume* of the progress of construction of American grain elevators as short and concise as possible, owing to the large number of papers to be brought before this distinguished assembly, the writer will confine himself to a description of modern elevators merely, without touching upon the history of grain handling in America any more than is absolutely necessary.

The modus operandi of a grain elevator is about as follows:

1. A power car-puller sets a string of cars each opposite an elevator leg, or vertical grain conveyor, located about a car-length apart.

2. Car-doors are opened, two shovelers enter each car and each handles a shovel operated by rope from a power-shovel shaft in the elevator.

3. The grain drops into a receiving hopper, is elevated in buckets bolted to a rubber belt 150 feet to the top floor of a cupola, where it is discharged, in turning over a head pulley, into an accumulator, or garner, and thence into a weighing scale.

4. From the scale the grain is spouted;

a. On conveyor belts running horizontally and discharging over movable trippers into storage bins. (Storage elevators.)

b. In car spouts for reloading or transferring. (Railroad transfer elevators.)

c. Directly into storage bins.

Into shipping bins with dock spouts, to be loaded into vessels.

Into car spouts. (Terminal elevators for rapid handling and storage.)

d. Into garners above cleaning machinery. (Cleaning elevator.)

5. When the cars are empty the shovelers take with them the power-shovels across the working floor (about 14 feet) to a string of cars set in on the opposite side of the elevator, where the performance is re-

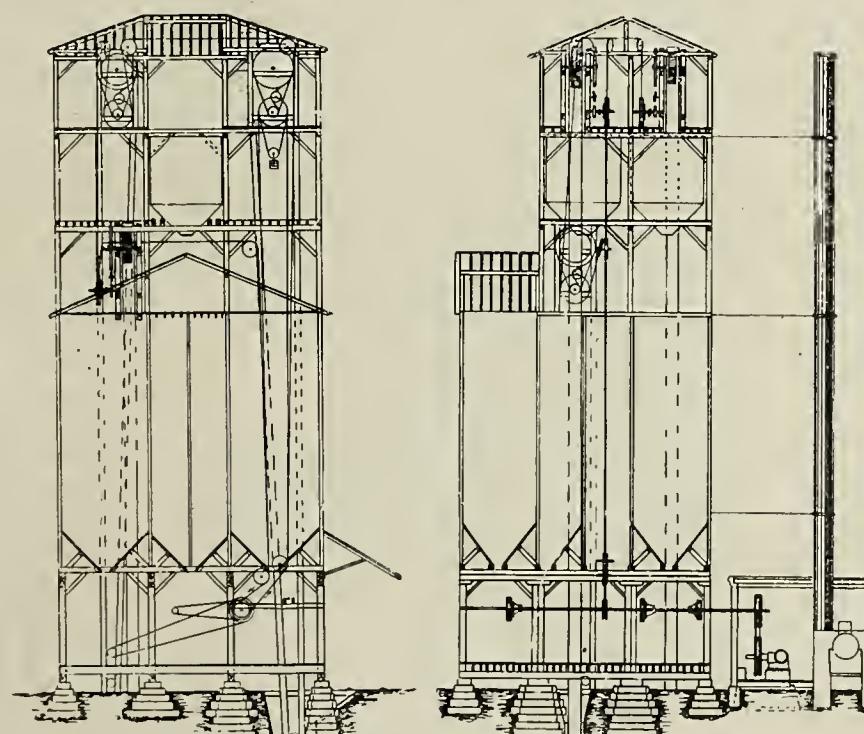
peated, while the first string of empty, is being replaced by loaded cars.

In addition to the four classes of elevators mentioned we have the marine elevators, receiving grain in bulk from vessels—usually by means of one stationary and one movable marine leg—so as to unload two hatches simultaneously. The grain is elevated into a garner, weighed and re-elevated, or spouted, on conveyors into storage, or transferred into ears. The sixth class of elevators are the small country houses, or railroad station elevators, where grain is weighed in farmers' wagons and dumped into a pit, elevated, stored, and

tions commenced at once. An excavation is made about 18 inches deep, if in clay or sand, and the same covered with hewn railroad ties in such manner as to get the entire surface as a basis for the superimposed load. Three or four timbers are laid side by side in bents from 11 to 14 feet apart across the ground, and from 12 to 50 feet longitudinally. Short cross corbels are rested thereon, supporting cross and longitudinal timbers, upon which the cribbing is spiked. The cribbing consists of pieces of 2x8 or 2x6 common pine or hemlock, usually surfaced one side and one edge, laid flat on the top of each other, and spiked with 30d spikes every 12 inches zigzag. The two first cross bents of the elevator are usually built on posts, so as to form a working floor from 20 to 28 feet wide across the width of the elevator. Here are located the elevator legs, or vertical grain conveyors, at a distance of from 36 to 40 feet from center to center, according to the length of the freight cars. These legs extend into the ground about 12 feet from the working floor, so as to be able to take grain from a receiving hopper, extending to a point between the rails of a track running alongside the front of the elevator as close as the cars will permit. The angle of the receiving hopper with the horizontal is in the neighborhood of 35°, or 2 to 3, so that the corners of the receiving hoppers will clean themselves of oats. The height of the planking, in the rear or storage part, varies considerably according to the value of the building site, and runs from 40 to 85 feet in height. Above the planking, i.e., above the bin floor, a so-called cupola is erected directly over the space before designated as a working floor. In this cupola a series of scales for weighing the grain received or

shipped is located, and inasmuch as, particularly in shipping, the elevator legs receive grain all the time, it is usual to locate, immediately beneath the discharge spouts of the elevator legs, a garner or accumulator above each scale for the purpose of receiving the grain while the scales are weighing and unloading. Another system of somewhat older date is to use two scales, called twin scales, for each elevator, accomplishing the same purpose.

On the bin floor immediately beneath the scales and extending longitudinally with the elevator, is a series of grain conveyors, consisting simply of endless belts varying in width from 16 to 40 inches, on the upper line of which is located a so-called tripper, which is movable on a track running from one end of the



SECTIONAL VIEW OF WORKING PART OF CLEANING HOUSE.

for shipment re-elevated, weighed in a hopper scale and spouted into a car.

THE CONSTRUCTION OF STORAGE ELEVATORS.

The want of additional storage at a railroad terminal is usually dictated by immediate demand, and for this reason this class of elevators is constructed usually with greater attention to cheapness and rapid completion, combined with strength, than to mechanical details. There have been cases where the problem has been put to an elevator builder in this way: "We want 3,000,000 bushels of storage, with a handling capacity of 200,000 bushels per day, constructed complete within 45 days; can you do it? and at what price?" If the builder says, "Yes; I can do it at 5 cents per bushel," the contract is signed and opera-

elevator to the other. In receiving grain it is spouted down on said conveyors, and the tripper is located above the bin or reservoir in which the grain is to be stored. The speed of these belts in modern elevators is about 700 to 800 feet per minute, and, although the surface of the belt is perfectly flat, the cohesion between the kernels of grain is such as to gather the grain toward the center of the belt in such manner that from 2,000 to 20,000 bushels per hour can be conveyed. The bin bottoms in a storage elevator of this kind are usually flat, consisting of 3x14 joists, placed about 9 inches on centers, and covered with 2x6 dressed and matched flooring. Sometimes this floor is laid directly on the ties on sills, but this practice is not to be recommended, as it leaves less chance for ventilation. For unloading the grain from the elevator, belt conveyors are located along the bin bottoms at convenient distances so as to reach the front receiving or shipping legs, and are covered with planking or cribbing, or planking on the sides with timbers overhead, in such manner as to form tunnels, extending from the working floor to the end of the elevator.

In receiving grain from the cars, a train consisting of as many cars as there are receiving legs is detached by means of a power car-puller from a string of from 20 to 30 cars set in by a switch engine. Owing to the different lengths of the cars, they are detached and "spotted" or located each opposite a receiving leg. The exterior covering of a storage elevator is usually of corrugated iron, with a tin or aluminum alloy roof.

Inasmuch as the elevator legs must extend some 8 or 10 feet into the ground, they are located in steel tanks of $\frac{1}{4}$ to $\frac{5}{6}$ material, and, to prevent the collapse of these by the pressure from the superstructure, it is a good practice to drive a few piles on each side of each tank and cap them with timber in such a manner as to bridge the tanks.

As for time, the principal item in rapid construction of this kind is to get the material on the ground. The planking or cribbing can be done at the rate of 6 to 7 feet a day, so the main structure, from the top of foundation to the bin floor, can be finished in 12 to 15 working days, when properly managed.

Where the bins or grain reservoirs are more than 12x16 feet area, they should be rodded. A good rule for calculating the rodding of a bin is to imagine a bin filled with grain, turned over flat and the side suspended by rods running through the grain. As the rods should not exceed $\frac{1}{4}$ or $\frac{1}{2}$ inch diameter steel, it gives a space between the rods in large bins of about 5 feet square. Formerly the practice was to increase the diameter of the rods toward the bottom of the bin, but it has been proved that the horizontal pressure in a bin is practically constant from within 15 feet of the top to the bottom. The reason for this is that grain such as corn, wheat and oats in bulk forms a peculiar bridging, leaving the pressure on the bottom, under ordinary circumstances, constant for any height above twice the width of the bin.

Experiments have given the load on an equilateral bin bottom as very nearly equal to the weight of a paraboloid of a height 1.8 times its base, and this fact led the writer to make the bin rods the same diameter from bottom to top of bin, with good results. In some of the older elevators where the bin rods at the bottom were from $1\frac{1}{2}$ to 2 inches diameter, it has been found that the down draft of the grain in unloading the bin bent the rods and pulled the washers into the bin walls, while the $\frac{1}{2}$ to $\frac{1}{4}$ inch rod seems to cut through this suction without damage. But for this peculiarity of grain, the construction of bin bottoms would present great difficulties, the static load figuring up to 4,000 pounds per square foot.

RAILROAD TRANSFER ELEVATORS.

The second class of elevators are the railroad transfer elevators. Some state legislatures have during the past few years passed acts compelling railroads to give hopper scale weights on transferred grain, and as a result a number of transfer houses have been built, handling from 100 to 300 cars per day. Their construction presents few difficulties, as they have no storage capacity whatever. Two tracks run entirely through the building, the elevator machinery being placed in the platform space between the tracks. The cupola, with the elevator heads and scales, is located directly above the first floor, at a height to give suffi-

cient fall, through car spouts, to trim or fill the cars without the use of manual labor in the cars.

TERMINAL ELEVATORS.

The third class of elevators refers to terminal houses for storage, rapid handling and shipping, either by lake and rail or both. In general, these houses are termed "up houses," i. e., they are entirely built on posts, in such manner as to form a large working floor beneath the entire storage area. From three to four railroad tracks are run through the entire length of the house, and, according to the number of cars the house can unload simultaneously, they are termed 5-car, 8-car, 10-car houses, etc. The most modern construction locates all receiving and shipping elevators in one line, with receiving tracks on each side, thus occupying the three center bents of the elevator. The loading tracks are usually located in the outside bents, while, of course, the center tracks are arranged for shipping purposes. Owing to the size of the car, the transverse bents in the house are at least 13 to 14 feet each, which makes the house either 56, 70, 84 or 98 feet wide. Longitudinally the bents usually are in succession, 12, 12 and 14 feet, leaving the elevator legs at a distance of 38 feet from centers. At the end of the elevator the power house is located, in such manner that one of the loading tracks passing through the house also passes the engine house, so that coal may be received from one end while grain is loaded into cars going in an opposite direction. All bin bottoms in a house of this description are hopper bottoms, and all bin openings of a diameter sufficient to fill elevator legs or conveyors to their full capacity.

A modern rapid-working terminal elevator is equipped with the very best machinery, electric lights, fire pump and service, passenger elevator, dust collectors and floor sweepers—in short, all contrivances that will cheapen or lessen labor or promote rapid handling of the grain. As the entire building rests on posts, the loads are concentrated at certain points. The load per pier varies from 300 to 450 tons, and as the safe bearing capacity of the soil seldom exceeds $2\frac{1}{2}$ to 3 tons, piling is resorted to, with cross and longitudinal oak grillage and stone piers. As the entire load of grain is thrown on the bin walls, the girders supporting these walls between the clusters of posts must be of a very strong construction, usually two 12x14 long-leaf yellow pine or oak sticks, on top of each other, supported by white oak corbels braced back into the posts below. Formerly the entire basement was taken up by stone piers and elevator tanks, but the tendency is now toward using less stone and extending the posts into the basement, leaving it open and concreted smoothly, so as to enable the removal of the dust and the admission of light below the first floor. Fireproof construction of the first floor and basement is much to be recommended, although it materially increases the cost of the elevator.

CLEANING ELEVATORS.

Under the head of cleaning elevators we encounter the most complicated construction and the greatest variety of details. The writer will, however, confine himself to what has been adjudged the most improved arrangement.

The receiving department of a first-class cleaning elevator is practically that of an up-house or handling house. Between the first and bin floors is, however, inserted a cleaning floor, a separate department with garners above and garners beneath. In this manner the grain from the scales is spouted into the garners; thence, by gravity, through the cleaners into the lower bins, whence it is elevated and spouted into storage, shipping bins or car spouts. By enabling a number of small bins overhead and below the cleaning floor to communicate with the cleaners, it can readily be seen that any mixing or grading can be done without difficulty.

If cleaners are located on first floor or bin floor, elevator legs are required for either taking away from or supplying the cleaners, and as the capacity of a leg is 5,000 to 6,000 bushels per hour, while a cleaner only averages 2,000 and an oat-clipper 500 bushels, it is clear that there is a waste of machinery in this arrangement.

The dust from the cleaning machinery is blown into separators or cyclones, and exhausted by a powerful fan and blown into a large separator located directly above the boiler furnaces, where the dust and chaff

form a material part of the fuel. The floor sweepers before alluded to consist of 6-inch suction pipes extending to the floor, where a nozzle is attached, flat flared out, with a sliding gate. Any sweepings are brought in the vicinity of the nozzle, the gate is pulled out, and the sweepings are, a few seconds later, consumed in the boiler furnace.

In a similar manner the dust from the elevator heads, garners and hoppers is disposed of. The surplus air from the fans in the cleaning machinery is thrown into a couple of large air conduits discharging above the cupola roof.

The storage of a cleaning elevator of this description consists of an annex, loaded and unloaded by means of belt conveyors. The annex should have hopper bottoms, and is built on ties, while the front or cleaning part is built on piles. Owing to a certain shrinkage in the planking, or cribbing, many difficulties are often met where an up-house joins a low annex, as while the posts in the former retain their length, the planking in the low annex shrinks several inches in the same height. This is usually remedied by giving the cross timbers running into the annex a corresponding camber, so that when the house has settled it will be nearly level.

Some builders erect the entire cupola of any elevator on independent posts extending through the bins, to counteract any influence of the shrinkage on the driving machinery, but the writer's experience is that the cribbing shrinks so evenly that no material trouble occurs on this score, so that he considers it advisable to build the cupola directly on the cribbing.

As to the driving machinery in grain elevators, it has changed materially during the past six or eight years. The most approved method to-day is a high speed engine with manilla rope transmission from the engine to the last piece of machinery in the elevator. In a cleaning house the cleaner shaft should run about 250 revolutions per minute, as the cleaning machinery runs at a speed from 400 to 550 revolutions per minute, and the engine from 100 to 150 revolutions per minute. A direct rope transmission from a main-line shaft in the cupola to each of the elevator head pulleys is found to give satisfaction. The usual practice is to have eight strands of 1 inch rope for each transmission, the rope speed being only about 750 feet per minute. It is very important that all the machinery in an elevator be strictly first-class in every respect, as any hitch or slip in the driving gear is sure to cause serious chokings of the grain where it enters the elevator leg.

Grain elevators are usually covered with either brick or iron; in case of brick the unevenness in the settling between the exterior brick shell and the main structure is taken care of by means of anchors with slip joints, permitting the planking to go down 12 to 24 inches without disturbing the tie between both parts. In case of corrugated iron covering, the sheets are put on with corrugations running vertically, and nailed 4 inches from the lower edge only, so that the shrinkage of the planking is taken care of separately for each sheet.

The best roofs are probably the I. C. old process charcoal tin, although last year a large cleaning elevator was built with a roof of aluminum alloy metal, greatly reducing the weight and having the advantage of not requiring painting.

The principal requirements of a grain elevator, namely, strength, tightness, light, and effective and accessible machinery, are such as to invite the attention of engineers; and before closing the writer wishes to say that the handling and storing of grain, both in the interior and at the lake and ocean terminals, presents a wide field for future discovery and improvements. Some of the immediate wants are: Larger capacity cleaning machinery, adequate drying apparatus, automatic weighing machinery, fireproof bin construction, and pneumatic unloading of cars or vessels with a view of greater capacity per hour than can be obtained at present. And last, but not least, a general use of electricity for driving isolated parts of machinery, or, perhaps, for transmitting power to every piece of machinery in the entire elevator.

The main principles which must be kept in view while making these improvements are rapidity and economy of construction, and a reduction of the labor employed in the handling of grain in American grain elevators of the future.

HAY IN THE UNITED KINGDOM.

In view of the deficiency in the English hay crop of last year, and of the certainty of a still greater deficiency this year, it is instructive to notice the amount and the sources of the imports of this commodity, which are, for the first time, stated in the recently issued annual statement of the external trade of the United Kingdom for 1892. The hay crop in England and Wales was in 1890 an average one, and was estimated at 8,183,481 tons. In 1891 the estimate was 7,032,315 tons, and in 1892 only 5,558,843 tons. The total imports last year reach 61,237 tons, and the quantity and value received from each principal source of supply are shown in the following table:

	Tons.	Value.
Holland.....	19,403	£ 77,483
Canada.....	13,120	58,799
United States.....	11,687	53,619
Germany.....	4,290	16,978
France.....	3,526	14,341
Algeria.....	3,874	15,783
Other countries.....	6,036	22,582
Total.....	61,237	£259,593

On the whole, the hay crop of Ireland and Scotland are not expected to be seriously short this year, but the yield in England and Wales will be so poor that the imports may be expected to be unusually large. It is certain, however, that Germany and France will have little or none to spare, and the increased supplies must be looked for chiefly from Canada and the United States.—*Beerbohm's London List*.

SHORT WEIGHT HAY.

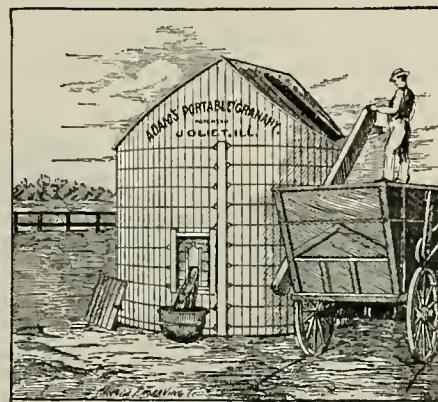
There seem to be some peculiarities in the hay trade that at present are not attached to other branches of the business; while some may have existed when the country was new, and the facilities for discovering them were crude, they have long since been disposed of. There were times when the customer did not object to the grocer putting a sheet of heavy brown paper over the scales when weighing out sugar, neither did he watch the scale of the coal dealer, as he expected to allow a little tare on the commodity that he was obliged to purchase. Occasionally loads of hay were sold by the lump or the weights were guessed at. However, all this has changed. To please his customer the grocer must have his scales finely balanced and use the lightest kind of paper; the coal dealer must have his scale beam in sight and give 2,000 pounds for a ton instead of the 1,700 that he was usually credited with giving in former times. The loads of loose hay that are now sold in country towns must be carefully weighed and figured down to a nicety. The grain, instead of being measured and dumped into the bin of a warehouse, is now passed over the scales and accurate weights taken, and each kind or quality stored by itself. The potatoes brought to market are weighed and a tare taken from them sufficient to cover the loss by shrinkage.

The dry goods merchant, who in years gone by was accused of measuring his thumbs in with the piece of cloth, must now give full yard measurement. Custom, competition and rights demanded have compelled this, but in the baled hay trade there is one peculiar custom yet to be overcome, that of short weights. While the majority of baled hay is correctly weighed when pressed, there are some dealers who are very careless in regard to this matter, and oftentimes bales are found to be from fifteen to twenty and even thirty pounds short of the marked weights, which can scarcely be classed under the head of carelessness. These short weights have brought about a custom in the handling of what is known as "shipping hay," of taking off a certain number of pounds from each bale whether they are short or not, which has really put a premium on what might be called dishonesty, as the party who gives the correct weight is obliged to suffer a loss to make good the shortcomings of others. This does not stop with the item of shipping hay, but there is a shadow of distrust cast over the weight of all grades of hay that goes to market. It is well known that there is a natural shrinkage, caused by handling of the bales, that cannot be prevented, but it amounts to very little, and which everyone in the hay trade

must expect to meet, but the deliberate marking up of weights from fifteen to thirty pounds is a matter that should be stopped, and can readily be done if the receivers would establish a custom of taking net weights and putting all on an even keel. When this is done a higher scale of prices can reasonably be looked for, as the present uncertainty of weights causes buyers to discount the anticipated shortage of weight in the price paid.—*Hay Trade Journal*.

PORTABLE GRANARY AND CORN CRIB.

A granary or a corn crib that you can roll up and set in a corner when not in use, ought to prove a valuable acquisition to country dealers with small elevators or warehouses and cribs that are not large enough to accommodate their business at all times of the year. During an unexpected rush of grain to market or after

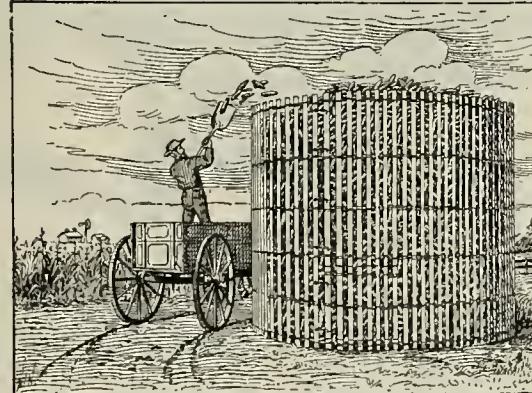


ADAM'S PORTABLE GRANARY.

an unusually good crop they could be used to great advantage.

W. J. Adam of Joliet, Ill., claims to have the only practical portable granary in the market. These granaries are circular, as shown in cuts, and for this reason they will hold about 25 per cent. more grain than a rectangular building, using the same amount of material. The fact that they are circular makes it possible for them to withstand the force of the wind to a greater extent than a rectangular building. They are no cheap, clap-trap makeshift, but a good, well made, perfectly fitted circular building, constructed on the most approved scientific principles.

The sides of Adam's Portable Granaries are made of matched lumber one inch thick, each section being



ADAM'S PORTABLE CORN CRIB.

about two and one-half feet wide. The ribs to which the lumber forming the sides is fastened, are so constructed as to top-lash each other and lock together with a pin, making it easy to set them up, thus making a large circular bin or granary. They are bound together by ten hoops of No. 9 galvanized steel wire, averaging nine inches apart, being closer at the bottom and gradually increasing in distance going upward as the strain decreases. These hoops are provided with threaded eyebolts to draw them tightly about the granary.

The floor is made of one-inch matched lumber, put together in sections, exactly fitting inside the granary. The roof is made of closely jointed lumber with a peculiar groove on both sides of the joint, which collects all the water and prevents it running or being blown into the joint. In this respect it is somewhat like the roof of a car. The middle section is made so as to be easily removed, thus allowing the grain to be discharged into the granary.

These granaries are provided with an inside and

an outside door. The outside door (as shown in the cut), being removed, leaves an inside door which holds the grain back. In this door is a slide, which being raised, allows the grain to be discharged; and by closing it shuts off the flow of grain. When the grain is below this door it may be removed, leaving ample room for a man to enter and shovel out the balance of the grain. The roof and sides of these granaries are well painted with good mineral paint, and if they receive an occasional coat of paint will be as durable as a building costing three times as much.

Adam's Portable Corn Cribs are made of heavy staves, one inch thick, dressed on both sides and beveled to an edge so as to allow the wires to fit closely around them and not be injured by the twist. These staves are woven between six sets of No. 10 galvanized steel wires at distances of about 1½ inches apart, thus allowing ample ventilation.

A gate is provided at the bottom to empty the crib. On the inside, below and above the gate, and at the top of the crib are iron stay rods to prevent the crib from spreading while the door is open, and also allow an opening to be made the entire length of the crib. For ordinary use no floor is necessary, but a circular floor is made just fitting inside the cribbing when required.

The crib is shipped all rolled up in a bundle, and requires no tools nor mechanic to erect it. The fastening attachments are all properly secured, and all that is necessary is to stand it in a circular form, latch it together and fill it. Ten or fifteen minutes is all the time it should take to erect a crib.

The cribs, being portable, may be taken down and removed as often as desired, thus preventing them from becoming a harbor for rats and mice. A good cheap roof may be made by taking a piece of canvass or heavy sheeting, drawing it tightly over the top of the crib, and giving it a coat of paint.

In erecting the crib a spot is selected as near level as possible, the circular floor is put down and the roll of cribbing placed in an upright position. As the cribbing is unrolled it is drawn tightly around the circular floor and fastened with hooks attached for this purpose.

RISE OF COTTONSEED.

Thirty years ago in every Southern state the cottonseed was thrown away as worthless or used as fuel. For a third of a century, says the *Tradesman*, attempts had been made to compress the oil it contains, but failure had followed failure. It was a waste product until the saving hand of genius touched it, and like magic a great industry sprang into existence. What a few years before had been left to rot at the cotton gin rose in value with wonderful rapidity, until at one time it sold as high as \$19 a ton. To-day the product of the industry exceeds \$27,000,000 a year in value, of which the oil brings in \$16,000,000, the cake nearly \$8,000,000, and lint and hulls over \$1,500,000 each. Only one-third the seed is used as yet, and this wonderful industry but waits upon a market for the oil, either in adulterations of lard and olive oil or some more innocent occupation, to triple its great output. The truth is, the South is just awakening to the value of its waste of agricultural products. The crop that was once grown only for the down that winged its seeds now furnishes oil, food for stock, lint, hulls for fertilizer or food for stock, and from its waste stalks, long left to rot in the field, splendid paper can be made. Of one despised product, formerly thrown aside as worthless, the late Henry Grady said but a few months before his death: "The hulls of the cottonseed in the cotton states will produce more beef, butter, milk and cheese, more wool and mutton than all the clover and blue grass in Kentucky, Tennessee and Ohio."

Merchandise valued at \$65,416,367 was exported in June, and \$68,742,612 in May. For the fiscal year ending with June \$847,423,147 was exported, against \$1,030,278,148 for the preceding twelve months. The imports were \$75,832,084 in June, \$79,798,120 in May, \$84,997,522 in April and \$92,565,361 in March. For the fiscal year ending with June we imported merchandise valued at \$941,076,128, against \$827,402,462 for the preceding twelve months.

ABUSES OF THE HAY TRADE.

[Address of F. F. Favor of Boston before the meeting of the Hay and Straw Dealers' Association at Saratoga, N. Y.]

We have again come together to get posted, get acquainted, compare notes, devise ways and means whereby we can to the best advantage to all interested parties market the best crop of hay that has been harvested in the United States for years, and on the dealers, to a great extent, rests the responsibility of its value in dollars and cents. It is not for the interest of any class, the farmers, or the country at large, that any crop, more especially the most valuable one that we raise, should be marketed at a loss. The market needs cultivating as much as the crop itself, and the question arises how shall we go about it?

If you overfeed your horses or cattle you make them sick; just so with our markets; they have been overfed of late and they have not got over being sick, and will not until you take their feed away from them. Prices were well sustained the past year, from the fact that the markets were not overloaded; it was a good thing we had a scarcity of cars at times, it really helped the farmers and dealers thousands of dollars.

It is for the interest of farmers that prices should start low and remain steady; last year it began that way, and I venture to say the farmers received more money for their crop than they would have had prices begun \$3 or \$4 higher.

If buyers do not get excited we can buy all the hay our markets can digest, and not pay any more than we paid last year, and we will be doing a kindness to the farmers in starting at the same prices as last year. I am aware all eyes are turned toward Europe in the hope that we are to control these markets, that their necessities will create an opportunity for our American surplus hay, but we must not bank too much on this foreign demand; I fear we will regret it if we do. I am aware that the European drouth covers at least 500,000 square miles; almost if not quite equal to all the hay producing states of this Union. But we must not lose sight of the fact that they have hundreds, yea, thousands of ocean steamers and vessels running to and from every land on the globe, and wherever they go the haypress is there, and all tariff restrictions are removed so they can operate, and I do not believe they can stand up and take all the hay in the world and pay the exorbitant prices they advertise. Somebody is going to get left on the foreign craze; but one thing it will do for us, it will tend to keep Canada hay out of our market to a great extent. This will be a decided benefit to us. In this country we have got quite a nice little stock to provide for ourselves; we have over 16,206,200 horses (one to every four inhabitants), 2,331,128 mules, 52,378,283 cattle of all kinds. A grand total of 70,915,613 critters, to say nothing about 47,273,553 sheep.

I noticed articles going the rounds of the papers that the average hay crop of the United States was 46,000,000 tons; that would not any more than feed the mules and horses. They say figures do not lie, but that depends on the bookkeeper. If it was not for the natural increase of horses, I would feel quite safe in predicting a lighter demand for baled hay in New England cities and towns the coming season than we had in the past year, but we have had for several years a steady increase in the consumption, and I see no reason to expect a decrease, although certain sections have an unusually fine crop which will curtail the sale of baled hay in many country towns, but will have little effect in the cities. The past year the western part of Maine and all New Hampshire were importing baled hay, but this year are having fair crop of weeds (we cannot call it hay), and will get along without buying much outside.

The subject of grading is a regular chestnut in our discussions; it seems to me some shippers grow worse

instead of better. They swear they grade right, but the receiver knows a good deal better, that they don't. We can forgive and forget mistakes, but when they are done knowingly, willingly and unlawfully, the best way is to try some other fellow. Wood is still with us; we have raised our feeble petition against it to no purpose. The members of this association, of course, have long since done away with wood, and they need no talking to, and none of them being near-sighted, crosseyed, or color blind, and all honest, of course they need no lecturing on grading or making up weights or any other dishonest practices.

I have been called down for making the statement which I did in our last convention in Syracuse; as I said then, we do a commission business; but I believed in the new order of things, of doing away with the sending of hay on commission, and I reiterate it. There would be no such thing as commission hay if proper attention was given to grading by shippers. The men who are doing this hay grading right are the men who will control the hay trade of this country. Of course it is almost needless to remind shippers of the danger of pressing hay too early, before it has

freight rate in large cars, don't press too early or ship too fast. Don't try to do all the business or make all the money, if you do it will result in a loss.

THE EUREKA OAT CLIPPER.

Until within a comparatively few years the clipping of oats was unheard of. It has now become a large and profitable business. Clipped oats, as is generally known, command a higher price than those not subjected to that operation and are in constant and increasing demand. Clipping oats is not a whim or a notion, but is an operation attended with profit and, in fact, is becoming an essential one. To be profitable, however, the clipping of oats must be properly done, and this means rapidly and without waste.

The Eureka, it is said, was the first machine to enter the field, and the proprietor has studied closely the wants and necessities of this trade and improved the machine from time to time as was required. It is very compactly built; and in operating mechanism is extremely simple and runs very lightly with great capacity. In solidity of construction, perfection of fit and finish and high qualities of materials employed, it is the acme of perfection. To meet the growing demands for larger capacity the maker has, within the last year, brought out two new sizes, viz., the No. 7, capable of handling from 800 to 1,000 bushels per hour, and the No. 8, capable of handling from 1,000 to 1,200 bushels per hour, making it of great capacity. Its ventilation is perfect, rendering the machine dustless. All impurities are immediately removed as rapidly as they become loosened from the grain. In the operation of clipping, the hulling of oats does not occur.

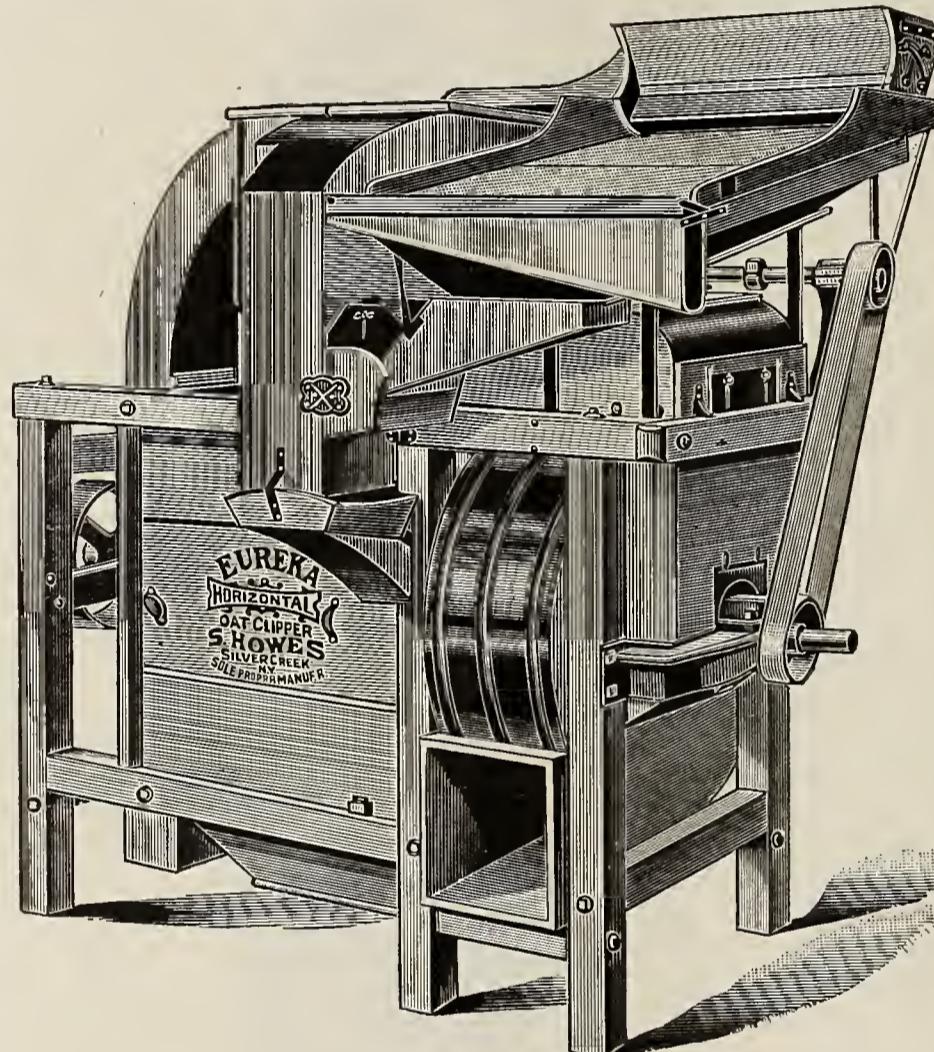
The separators on the clipper are fully under the control of the operator, regulated by valves so that as few or many light oats may be removed as is desired. On all sizes of the Eureka four distinct separations are made. The material is first subjected to a screening or sieving operation as it is spouted or otherwise delivered to the machine, to remove sticks, stones, straw or other large and foul material. As it passes from the shoe or screens it enters the cylinder through a strong current of air which removes the light impurities such as chaff, shrunken grain, dust, etc. While going through the process of clipping a strong current of air is being constantly forced through the case carrying the impurities which are removed by the clipping process, out through the openings of the case. Fi-

nally as the finished material leaves the machine it passes out through a current of air which removes all traces of loose impurities.

Connected with the shoe on all sizes above the No. 3 is a perfect automatic feed which insures entire and perfect regularity in supplying the stock to the machine for operating upon. Having a preliminary separation, a large amount of light oats, filth, dust, etc., may be removed before undergoing the operation of clipping. The proprietor will allow responsible parties thirty days in which to test the capacity and operation before settlement is required. All inquiries will be cheerfully answered by S. Howes, sole builder, Silver Creek, N. Y.

"The hayseed farmer" is the man who will have the bank account and wear diamonds as he mows. Young men in search of a fortune won't in the future inquire does he own a bank? But how is the old man off for meadow land?—*Ex.*

The governor of Kansas proposes "to open up direct trade with Europe." That is right. The governor of Kansas will have experience by the time he closes up a few deals, and there will be a loud call for some "middleman" to step in and clear "the middle."—*Hay There.*



EUREKA OAT CLIPPER.

been through the sweat; a great many know it well enough, but run the risk. They write they had a little stack of well cured hay, and are very sure it will open O. K., but it is a bad policy, and sure to result in loss of money and temper.

If shippers would let selling territory alone there would be less running through the country by the receivers. I can imagine a shipper's feelings to see a city buyer pop in on his stamping ground and bid up on the farmers, but there is another side to this; possibly the city buyer has a trade that is drummed by the shipper at the other end of the route by bidding down. It is "dog eat dog" all the time, but it is not the way to hold the market even. It is a good rule to "live and let live," when you find a firm that practices this, stay with them.

In conclusion, I do not wish to be misunderstood; we shall no doubt make all the effort we can to cultivate the foreign trade by selling outright, but not by consignment; you may as well dump it off the end of Long Wharf as send it on commission. A few firms could pool their issues and send a trusty agent over there, possibly to good advantage, but time will tell whether this is practical or not.

Now gentlemen, let us go home and set the ball a-rolling; remember we have a crop, don't pay too much for it. Don't wood it, get good weights and good

FOREIGN IMPORT DUTIES ON WHEAT.

In the June number of the British *Board of Trade Journal* there is a statement which shows the rates of customs duties leviable on wheat imported into the undermentioned foreign countries, according to the latest information in the possession of the Board of Trade. The foreign measures of weight and value have been reduced to their equivalents in United States measures:

Countries.	United States Equivalents.
Russia	Free.
Sweden	Per bushel of 60 lbs., 9.1 cents.
Norway	Per bushel of 60 lbs., 1.6 cents.
Denmark	Free.
Germany:	Conventional duty, applicable to countries having commercial treaties with Germany.
	General, applicable to non-treaty countries.
France:	Of European production. Per bushel of 60 lbs., 32.3 cents.
	Of extra European production:
Imported directly from a country out of Europe.	Do.
Imported from European entrepôts.	Per bushel of 60 lbs., 45.1 cents.
Spain	Per bushel of 60 lbs., 42 cents.
Italy	Per bushel of 60 lbs., 26.2 cents.
Austria-Hungary	Per bushel of 60 lbs., 16.6 cents.
Switzerland	Per bushel of 60 lbs., 1.6 cents.
Greece:	Conventional duty, applicable to countries having commercial treaties with Greece.
	General, applicable to non-treaty countries.
Holland	Per bushel of 60 lbs., 10.9 cents.
Belgium	Free.
	Do.
	Do.
Romania	8 per cent. ad valorem.
Turkey and Bulgaria	United States
	Per bushel, 25 cents.
Portugal	Prohibited, except under certain conditions and restrictions. Where importation is allowed the import duty charged is at the rate of 2 milreis per 100 kilograms (58.7 cents per bushel of 60 pounds).

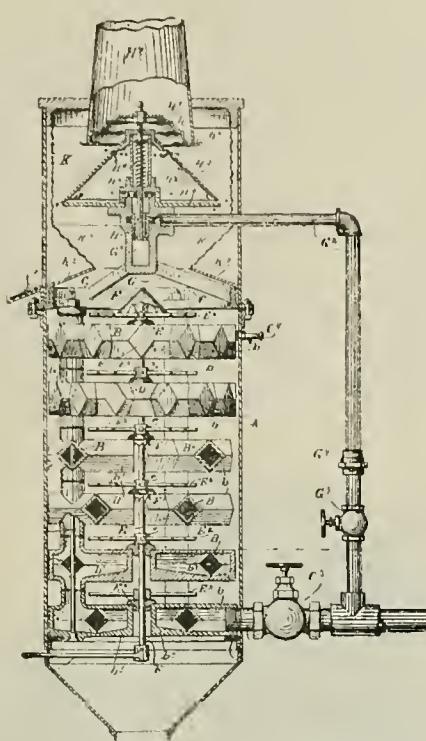
SHRINKAGE OF STORED GRAIN.

In deciding whether to sell harvested grain or to store for higher prices the *Agriculturist* thinks that the question of shrinkage from drying and from attacks of vermin is of important consideration. It appears that C. E. Thorne and J. F. Hickman at the Ohio station selected 100 pounds of ear corn at the husking time from each of 38 varieties. The 100 pounds of maize were weighed out when husked and placed in a loose box in a mouse-proof room, remaining there to dry until February, when it was again weighed. The average loss in weight of all 38 varieties was nearly one-tenth, or nine and one-third per cent. The medium sized yellow dent varieties lost the least, or five and two-thirds per cent. The large yellow dent came next, with a loss of just over 10 per cent. Then followed the large white dent, with a loss of over 10½ per cent. The mixed dent lost nearly 12 per cent., and the medium sized white dent lost most, or over 12 per cent. The individual loss varied from 2 per cent. in the yellow King of the Earlies to 22½ per cent. in the Mammoth White Superior. J. F. Hickman selected samples of each of 20 varieties of wheat, and in August placed them in small boxes, the two sides and ends of which are made of half-inch pine, thoroughly seasoned, the bottom of window screen wire and the top of glass. The full boxes were numbered, weighed, and buried for a year in a bin of wheat, after which they were left in one corner of the bin without any covering until the end of the third year, when it was found that six or nearly one-third of the 20 boxes were badly injured by insects. The other 14 boxes were weighed in August, and showed a loss in weight from three years' storage of nearly one-fortieth, or two and one-third per cent. The loss varied from nothing in

the Hungarian wheat to nearly 5 per cent. in the Bearded King. A similar test through the six months, from January to July, showed a gain in weight, caused by weather conditions.

GRAIN STEAMER, DRIER AND HEATER.

The apparatus which is represented in the cut given herewith may be used to dry, heat or steam grain, or may be employed first to steam and then to heat the



GRAIN STEAMER, DRYER AND HEATER.

grain. Patentee is George Y. Smith of Minneapolis.

The grain that is to be treated enters the machine through a spout at the top. The lower end of the spout is kept closed by a fluted circular valve which is pressed upward by a spring and does not yield to the weight of the grain until a sufficient quantity has gathered to pour over the edge in an unbroken stream. The quick closing of the valve after the grain has passed prevents steam blowing up the spout. The grain next encounters the conical distributing head, which is perforated near its apex and provided with a slit at its base through which the steam blows in a thin sheet. After falling through this sheet of steam the warm and wet grain is guided by a wire cloth or round

The whole apparatus is inclosed in tight case having a hopper bottom.

A RUSSIAN GRAIN CLEANING MACHINE.

One of the most interesting novelties in the Implement Annex of the Agricultural Building at the World's Fair will be found in the Russian section on space post-numbered E, C 3-4-5. It is the centrifugal grain sorting and cleaning mill invented by Count F. G. Berg of Sagnitz, Riga, Russia, for which letters patent have been obtained in the United States. It is intended for cleaning seed grain, and consists of a pan or dish ribbed inside and flaring widely at the top, attached to a spindle and set beneath a large grain hopper. In operation the grain is delivered in a stream from the bottom of the hopper into the center of the dish, at its bottom, which, being rotated rapidly on the spindle, throws the kernels upward and outward all around. In falling, the lighter particles, such as dust, chaff and broken kernels, fall nearest the dish, the lighter the nearer and the heavier the farther; hence the whole will be deposited in concentric circles, the heaviest kernels on the outside and lightest dust beside the dish, and thus the fat, heavy grains, which only should be used for seed, can be taken from the mass with a certainty and expedition that is marvelous, with wheat, oats, rye, etc., at the rate of five or six bushels per minute. The advantages of this machine will be apparent to every grain dealer, who knows how important it is to sow the best seed that can be procured, as with its use he can get wheat, for instance, without an oat or a foul seed in it.

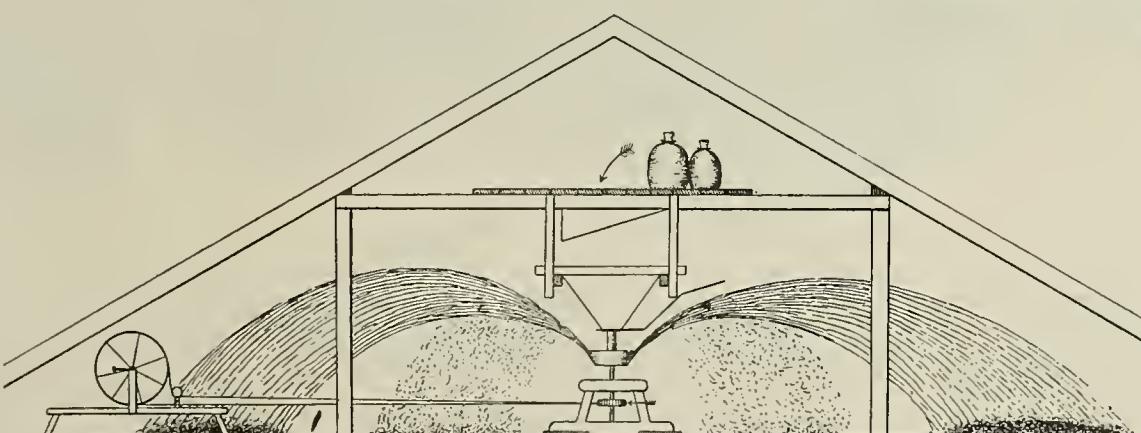
Besides this machine Count Berg, who is one of Russia's most successful agriculturists, exhibits an apparatus for discovering the quality or appearance of the meal in a kernel. This consists simply of a cardboard with holes cut therein of the form of the kernels to be examined, which board, with the kernels fitted to the holes, is placed over a little inclosed chamber containing a strong light; this shining through the kernels displays their density and inner formation.

He also shows a very peculiar and accurate pair of scales, of his own invention, for weighing the grains, both the light and the scales being used in determining their qualities. The count has been very successfully following "a system of rye breeding by selection," having given his attention almost exclusively to the production of rye; but the system is equally applicable to wheat or other grains. He shows extraordinary samples of grain, and of every grade.

The *Farm Implement News*, to which we are indebted for the cut given herewith, in describing a test of the Count's grain cleaner and sorter, says: The machine was set up in the middle of the floor, which latter was covered all around with white cotton so that the results of the trial or of the machine's operations could be clearly observed. The appearance of this mill and of the way in which it throws the grain or seed fed to it are so clearly shown

in the accompanying illustration that it will be unnecessary to describe them.

The machine was put in operation, the count himself turning the band wheel (shown to the left in the cut), from which belt runs to pulley on spindle. The big stream from the hopper, delivered to the bottom of the rapidly revolving dish or pan, which is ribbed inside and flares considerably, was thrown upwardly and outwardly in a steady shower upon the cloth covered floor, the heaviest kernels falling at a considerable distance on the outside, lighter within, false still nearer the mill, while the chaff, dirt and seeds lay next to it, each grade of grain and foul matter lying in concentric rings distant according to their respective weights from the center. The work was done rapidly, easily and perfectly; and the possibility of obtaining perfect seed grain through the use of this mill was demonstrated to all interests beyond question.



A RUSSIAN GRAIN CLEANING MACHINE.

perforated shell into the heating division. The excess of steam and water of condensation escapes through the drip pipe at the left.

The heating division is composed of six sections of cast iron heaters. The sections are held together by two iron rods so that two continuous steam passages extend from top to bottom. The arms of the sections are cast in different shapes to break the descending stream of grain and are sharp at top so as not to catch any portion of the grain. In case of clogging the mass can be stirred by the beaters, which are set radially on the upright rod running through the center. This rod is worked by the handle which projects at the left just above the hopper.

Steam is supplied to the heaters by the lower pipe, which also serves to draw off the water of condensation. A branch pipe leads to the steaming division above. Both are provided with valves so that each division can be employed independently of the other.

AN IDEAL ELEVATOR AND FEED MILL.

The ideal and the real are seldom very close together, but the Charter Gas Engine Company of Sterling, Ill., the designer of the elevator and feed mill illustrated herewith, claims to have reached that point in power equipment where the real is the ideal.

The brick engine house is built apart from the elevator and independent of it, so that the engine is isolated from the elevator. The power is conveyed from the Charter Engine to the elevator by a shaft, so there is no opening in the elevator side of the engine house except for the shaft.

Thousands of Charter Gas Engines stand in the elevator, in an adjoining horse power room or the basement, which is far from satisfactory. By the arrangement shown in illustration, the engine has a light, dry and airy place and is taken better care of by the employes, on account of its surroundings.

SHIPPING LOUISIANA RICE TO SAN FRANCISCO.

A somewhat unusual thing in this market has been the large importations of rice from Louisiana during the past season. This has been owing to the phenomenally large crop in the Southern States and the consequent cheapness of the commodity. As the growing crop is large in area and of promising condition, it is more than likely that Southern rice will continue to come here all the coming season.

There has come to our knowledge the method of doing business adopted by one house in New Orleans that is of more than passing interest. This house has been selling a good deal of rice in this market, and there has at times arisen more or less friction between the seller and buyer. The goods are sold on sample and deliveries have not always been up to sample. But, not only was the quality more or less off, the sacks were not by any means all full weight. Buyers allege that the rice delivered to them which was unsatisfactory in quality often ran as much as six pounds light per sack. It was quite natural that recourse should be sought under these circumstances, but the shippers at New Orleans systematically refused to listen to reason, and claimed full payment for their shipments, whether up to sample and of full weight or not.

In order to bar all recourse, a plan was adopted of drawing against shipments for the full face of the bill. Merchants here naturally objected to this unfair and arbitrary way of doing business, and claimed they had a right to hold back part of the payment until the goods had been received, sampled and weighed, in order that they might have proper recourse in case of any shortage in quantity or inferiority in quality. From the tone of some of the correspondence in these premises, one would suppose that our merchants were asking something unheard of in its unreasonableness, if not that they were laying a plot to defraud the shipper. The New Orleans houses do not dare to deny the allegations made. Indeed, they confess judgment, as the following taken from one of their letters will show:

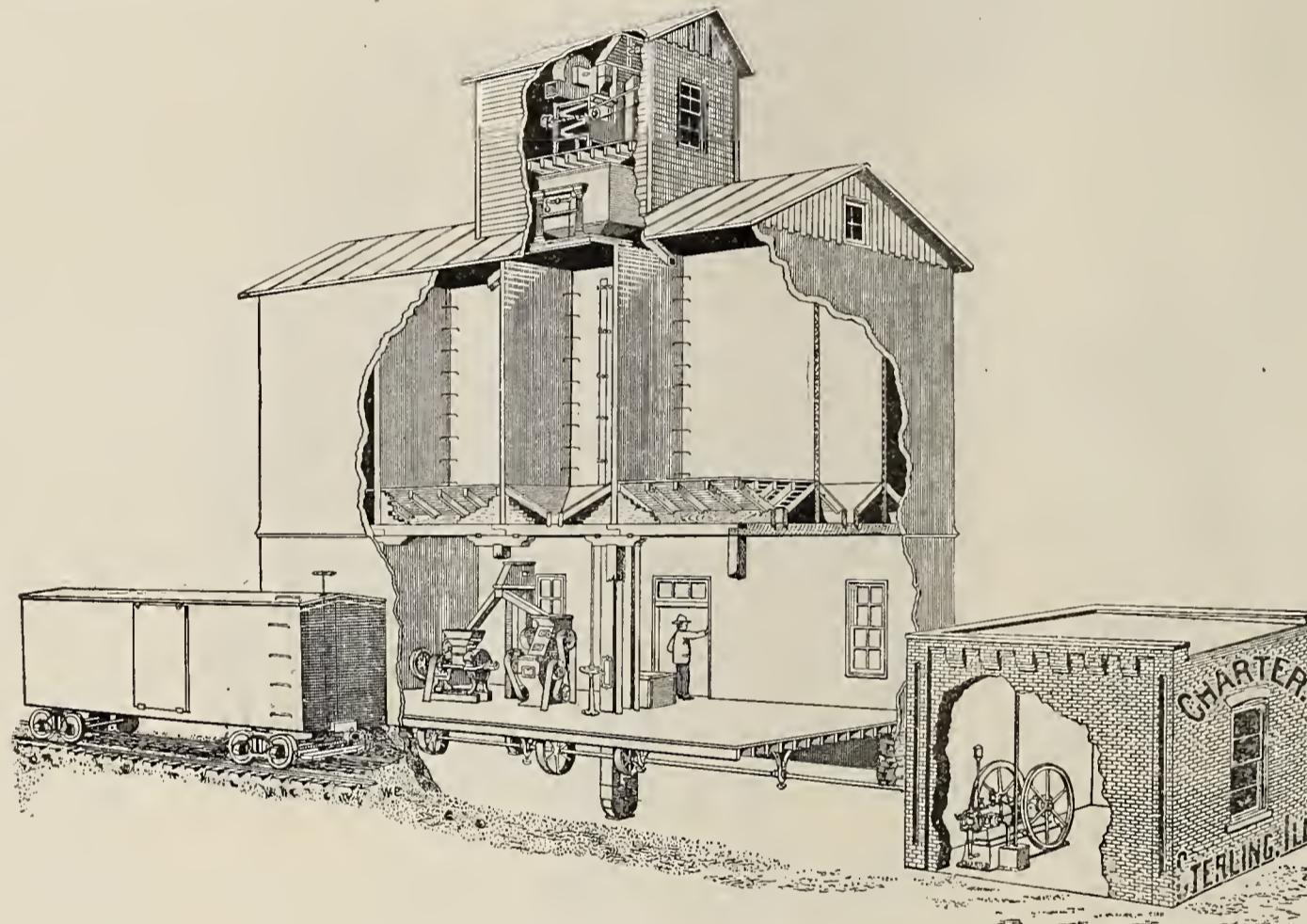
"We cannot accept orders from buyers except they

are willing to accept a fair average, some a shade off, some a shade better."

Under these circumstances it would appear as if there were but one way to proceed. Buyers will probably adopt the practice of not giving orders for goods to arrive, but will wait until the goods are here in stock, when they can see what they are getting, and not take a pig in a poke when so much inferior goods is offered. In case of stock in store here samples can be taken and the rice weighed and paid for by actual weight.—*Country Merchant, San Francisco.*

SHIPPING WHEAT IN OREGON.

Some of the Minneapolis manufacturers who use the white wheat from the coast states in their business report an interesting method of handling grain on the coast, under the present stringency. The trading is all done through the banks, or largely so. If a buyer in Portland wishes to purchase 50,000 bushels of wheat the purchase is made and the wheat is turned over to bank where the deal is made, and it in turn passes it to its correspondent in the terminal city where it is delivered. There it is held by the bank until the buyer makes the necessary deposit, when the



AN IDEAL ELEVATOR AND FEED MILL.

wheat is delivered, and the cash is sent back through the banks to the seller. In this way there can be no loss, and the banks are relieved from an advance of money and the necessity of taking collateral, and the seller is relieved of the necessity of borrowing.

A scheme of this sort may have its advantages where the business is conducted in a small way, comparatively, as it is on the coast, but in large terminal centers it would be embarrassing sometimes to be hampered in this way. The producer, also, can get no money on his product until the final delivery is made.—*Minneapolis Journal.*

That hay shrinks greatly was shown by a series of experiments made with 17 different lots of hay which were weighed and put in the barn and a second weighing made in December. The hay was made from timothy and clover and was cut at different stages of growth, from the time it began to head till it was nearly dead ripe. Fourteen of the lots of hay contained two tons each, the other three 800 pounds each. The greatest shrinkage was 36 per cent., and in four lots was over 30 per cent. The least shrinkage was 12 per cent. in very ripe clover. The average was 24.1 per cent. From the above it will be seen that, taking the cost of rehandling and the shrinkage, hay must advance largely in price to pay for wintering.

CLEANING RUSSIAN GRAIN FOR EXPORT.

The new elevator at Nicolaieff, constructed at the expense of the government, has been opened during the last few days. The elevator, which is placed under the direction of a commercial agent, seems destined to render great service to the Russian export grain trade, if the government makes its use obligatory.

Of late loud complaints have been made at foreign centers (London, Antwerp, Rotterdam) formulated by the Chambers of Commerce or arbitration, not only with respect to the quality of Russian cereals, but also of the foreign substances which have been purposely mixed with them.

The exporters at Nicolaieff do not seem to regard the elevator with much favor, but the Russian Government is now actively employed in regulating the export of cereals by placing the trade under official control, and there is reason to suppose, therefore, that the numerous abuses of the trade will cease in the near future.

The present dirty condition of the grain exported is the outcome of the present manner of shipping the grain. In 1872, for example, the export of cereals

from the Black Sea was made exclusively by small sailers which took two or three months to make the voyage to Southern and Western Europe and thus were the grain not well cleaned it was liable to heat and spoil. At this period, therefore, the grain was often screened three times in the pure air before going into the ship's hold.

Now, of course, every thing is changed. The grain is loaded in steamers carrying 10,000 to 15,000 quarters, the wagons bring the stuff on the quays, and the sacks are emptied into the hold. The dust arising from this operation is so great that it covers the ship like a thick fog, the exporters leaving to the consignees the task of cleaning the grain. The object of

the elevator being to clean the grain and separate from it all foreign substances, only thoroughly cleaned cereals without admixture of any kind will be allowed to be loaded.

DEADENING THE NOISE FROM A GAS ENGINE.

Among the various engineering investigations which for some time have engaged the attention of mechanical experts is that having in view some ready method for deadening the objectionable noise made by the puffs from the exhaust pipe of the gas engine, but only an indifferent amount of success has hitherto attended these efforts. The most recent contrivance of the kind is a device described in a French journal, and claimed to be simple, efficient and inexpensive. Briefly, a pipe split for a distance of about two yards is attached to the end of the exhaust, with the split end upward, and, beginning at the lower end of the cut, which may best be made by a saw, dividing the pipe into two halves, the slotted opening is widened out toward the top until it has a width equal in extent to the diameter of the pipe. Under this arrangement the puff of the exhaust spreads out like a fan, and the discharge into the open air takes place gradually, the effect produced depending somewhat on the flare of the tube.

HAY AND STRAW GRADES AT NEW YORK.

The rules of the New York Produce Exchange governing the grading of hay and straw in the New York market are as follows:

Rule 2.—It shall be the duty of the committee on hay and straw to report from time to time to the trade, for adoption, such regulations as they may think necessary for the inspection of hay and straw, and no change shall be made in such regulations, or in the grades established, except at a meeting of the trade to be called by the committee on hay and straw, due notice of the changes proposed being posted on the bulletin of the exchange.

HAY.

Prime timothy hay shall be pure timothy properly cured, bright natural color, sound and well baled.

No 1 hay shall be timothy, not more than one-quarter ($\frac{1}{4}$) mixed with other tame grasses, properly cured, bright color, sweet, sound and well baled.

No. 2 hay shall include all timothy not good enough for No. 1, proportionally mixed with other tame grasses, sweet, sound and well baled.

No. 3 hay shall include all hay not good enough for other grades, not over one-third ($\frac{1}{3}$) clover, but may be natural meadow free from wild or bog, sweet, sound and well baled.

Clover mixed hay shall include all hay containing not over two-thirds ($\frac{2}{3}$) clover, and one-third ($\frac{1}{3}$) timothy, properly cured, sweet, sound and well baled.

Clover hay shall be medium grown, properly cured, good color, sweet, sound and well baled.

No grade or rejected hay shall include all hay badly cured, musty, stained or in any way unsound.

STRAW.

No. 1 rye straw shall be clean, bright, long rye straw pressed in bundles, sound, well and securely baled.

No. 2 rye straw shall be clean, long rye straw, sound, well and securely baled.

Oat straw shall be clean, bright oat straw, sound, well and securely baled.

SHRINKAGE OF NEW HAY.

When hay comes to market an allowance of at least 4 pounds should be made for shrinkage, and should therefore be billed 4 pounds less than the actual weight, as it will lose fully that if not more. Now that we are in the midst of a large export trade it is especially necessary that some such rule be adopted, as it would give receivers on the other side an opportunity of returning correct accounts, and afford better satisfaction to purchasers, at the same time removing one of the excuses for throwing up contracts.

In England during the first three months' deliveries of new hay it has to be sold to retail customers at 60 pounds, instead of 56 pounds, for the English half hundredweight, and the government here would do well to turn their attention to the framing of an act of this sort, in order to protect the interest of consumers. The shrinkage in the weight of new hay is well known to be considerable, and it is very unfair that consumers should have to sustain the loss. To protect their interests the English Government has passed the above law, and it would be only an act of simple justice if the government of Canada passed a similar statute. Although there is no doubt that charges of irregularities against certain English receivers of Canadian hay have not been made without good cause, it is equally true that the great majority of firms on the other side are honest and straightforward in their dealings, and desirous of rendering true accounts; and if an act such as that above referred to were passed by our government, it would doubtless lead to a better feeling between Canadian shippers and English receivers.

Now that it is known that a good portion of the new crop of Canadian hay will be wanted on the other side, it is highly important that our shippers do not

get a bad name for sending short weights to their English correspondents; although it cannot be otherwise, if due allowance is not made for the shrinkage in the weight of the new hay.—*Trade Bulletin, Montreal.*

A NEW FLAXSEED CLEANER.

The growth of the flaxseed trade during the past few years and the prospective increase in the production of flaxseed which will surely follow the utilization of the flax straw has led to the invention of several very excellent machines for handling and cleaning flaxseed.

The machine illustrated herewith is specially designed for cleaning flaxseed. It consists of ten inclined cylinders, each independent of the others, so it is really ten cleaners. The number of cylinders can be changed to suit the user. Each cylinder is made up of a number of small cast iron rings. The tires of these rings or wheels are flat on the outside and V-shaped on the inside, so that it is almost impossible for seed to be retained in the cylinder. The rings are placed just far enough apart to let the flat seeds pass between them. The rings have internal flanges with hubs supported on them inside of the inner portion of

openings being at the head of the cylinder and the largest at the tail. As many separations as are desired can be made, the number being limited only by the number of different sized grains.

The machine is very simple and possesses no complicated machinery to get out of order. It is the invention of Mr. G. H. Rich, who has devoted many years to studying the difficulties connected with the grading of grain and to the separation of grain and seeds from dirt and other foreign matter. The cockle machine, oat separator and the grain grader invented by Mr. Rich have met with favor at the hands of users, and we doubt not his new flax cleaner will meet with the same fate. Any further particulars can be obtained by addressing G. H. Rich, 47 South Clinton street, Chicago.

NEW STANDARD WEIGHTS FOR BUSHELS IN MISSOURI.

The last general assembly of the Missouri State Legislature revised and re-enacted the law governing weights of agricultural products. In the absence of any other agreement, sales will hereafter be governed by the following weights to the bushel:

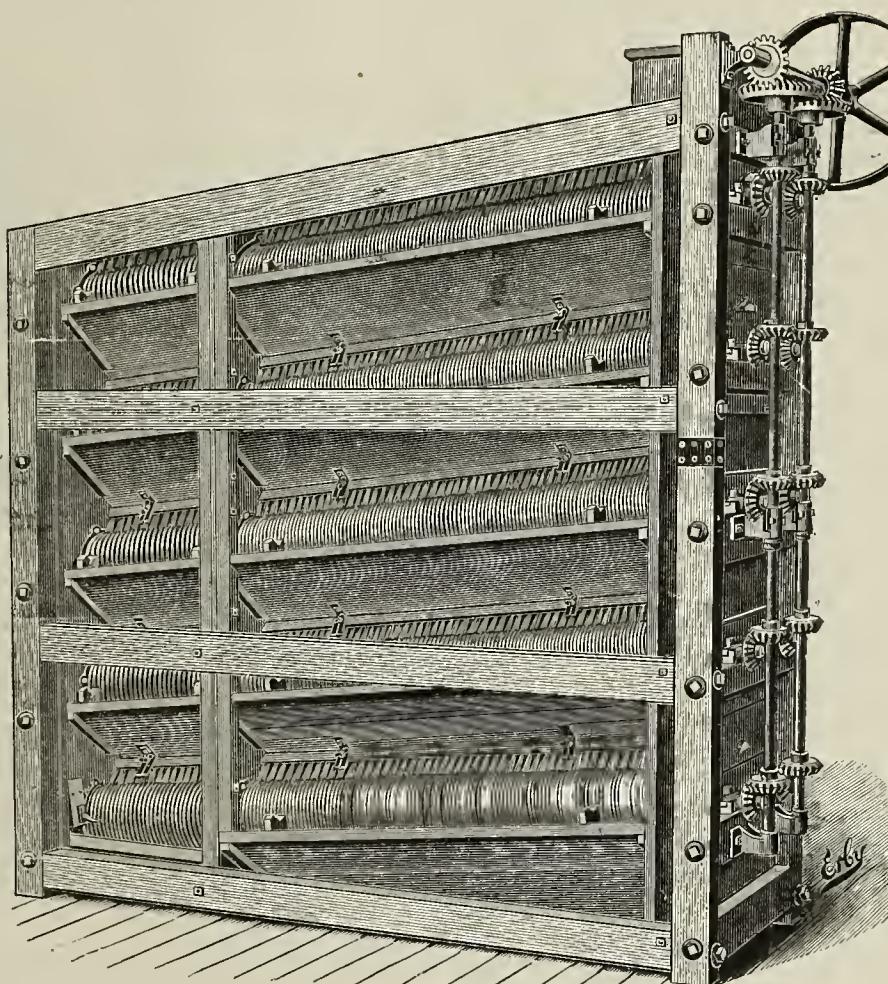
Wheat, beans, clover seed, Irish potatoes, peas and split peas, pounds.....	60
Rye, shelled corn and flaxseed, pounds	56
Unshelled corn, pounds	70
Barley, pounds.....	48
Oats, pounds.....	32
Bran, pounds.....	20
Onions, pounds	57
Dried peaches, pounds.....	33
Dried apples, pounds.....	24
Buckwheat, pounds.....	52
Castor beans, pounds.....	46
Hemp seed, pounds.....	44
Blue grass seed, pounds.....	14
Timothy seed, pound.....	45
Cotton seed, pounds.....	33
Salt, pounds.....	50
Mineral coal, pounds.....	80
Coke and charcoal, cubic inches..	2,680
Sweet potatoes, pounds.....	56
Parsnips, pounds.....	44
Common turnips, pounds.....	42
Carrots, pounds.....	50
Rutabagas, pounds.....	50
Cornmeal and millet, pounds	50
Green peas, unshelled, pounds.....	56
Green beans, unshelled, pounds.....	56
Apples, peaches, pears and Hungarian grass seeds, pounds.....	48
Malt, pounds.....	38
Top onion sets, pounds	28
Redtop seed and orchard grass seed, pounds	14
Sorghum seed, pounds.....	42
Osage orange seed, pounds.....	36
Cucumbers, pounds.....	48
Tomatoes, pounds.....	45

It is further provided by law that whenever apples shall be sold by the barrel and no special agreement is made as to the size of the barrel by the parties in interest, the size shall be as follows: Length of barrel, 28½ inches, with chines of three-quarters of an inch at the ends; the diameter of the heads shall be 17½ inches and the diameter of the center of the barrel inside shall be 20½ inches.

Louisiana has a smaller rice crop this year than last, it is said, owing to reduction of acreage.

A man by the name of Corn was married in Rochelle, Ill., to a lady by the name of Wheat. The fool choir sang, "What shall the harvest be?" A gamin in the gallery yelled out, "Nubbins"—and they cast him out of the synagogue.

There are times when country shippers, who are unfortunate enough to be on unfriendly terms with the commission houses here, find it difficult to operate. This was illustrated by one shipper, who has tried nearly all the receiving houses at times, and whose reputation is not the best, being unable to get a house to handle a car of wheat for him and pay the draft, although the bank in his own town guaranteed it.—*Inter-Ocean, Chicago.*



A NEW FLAXSEED CLEANER.

A NEW FIRM OF ELEVATOR BUILDERS.

The Seckner Contracting Company, general contractors at 79-81 Dearborn street, was organized March 1, 1893. The company is composed of C. M. Seckner, president, and J. H. Brown, secretary and treasurer. Both gentlemen have had a wide experience as general contractors and in superintending the erection of grain elevators.

Mr. Seckner of whom a portrait is given herewith, was five years with the elevator building firm of Seeley Son & Co. of Fremont, Neb., and three years with the



MR. C. M. SECKNER.

Heidenrich Company of Chicago, Ill. His experience in the construction of grain elevators extends over a period of fourteen years, during which time he has superintended the building of elevators in the majority of the Western states. Elevators at Cleveland, O., Bay City, Mich., Kensington, Ill., Argentine, Kan., and the Wisconsin Central Elevator at Chicago were put up under his supervision.

The firm has been unusually busy in Chicago during the past few months in constructing works at the World's Fair. The intramural elevated railway, which connects both ends of Jackson Park was constructed under their direction. The firm superintended the building of the Hale Tower in the Manufactures Building. They finished the construction of the Alley L Rapid Transit Road for Sixty-first street to Jackson Park. These different undertakings required men of ability in the construction line and the successful issue to which they were brought reflects credit upon the firm under whose direction they were completed.

The Seckner Company has made and is still making a specialty of elevator building. It is carrying on a very successful business and expects its work to give, as has always been the case, the best of satisfaction.

IMPORTS AND EXPORTS OF RICE.

Rice amounting to 3,080,529 pounds was imported during the months of June, against 10,405,078 pounds imported in June, 1892. During the twelve months ending June 30, 72,558,141 pounds, valued at \$1,249,065, were imported, corresponding with 77,622,461 pounds, valued at \$1,565,914, imported during the corresponding period of 1892. Of rice flour, rice meal and broken rice 6,120,021 pounds were imported in June, against 8,180,335 imported in June of the year preceding, and during the twelve months ending with June 63,268,281 pounds, valued at \$1,191,526, were imported, corresponding with 62,991,521 pounds, valued at \$1,097,436, imported during the twelve months ending with June of the year preceding.

Rice aggregating 893,836 pounds was exported during the month ending June 30, against 589,740 pounds exported during the month ending June 30, 1892, and for the twelve months ending with June 10,811,072 pounds, valued at \$212,769, were exported, against 10,577,123 pounds, valued at \$209,810, exported during the corresponding term of months of 1892. Of rice flour, rice meal and broken rice none was exported in June or in June, 1892. During the twelve months ending with June 30, 81,230 pounds, valued at \$1,700, were exported, against none exported during the twelve months ending with June, 1892.

Rice admitted free of duty under reciprocity treaty with Hawaiian Islands amounted to 395,000 pounds

during June, against 620,600 pounds during the preceding June, and during the twelve months ending with June 8,473,800 pounds, against 7,489,700 pounds for the preceding twelve months. During the twelve months ending with June 30, 59,500 pounds of this imported rice were exported free of duty, as compared with 14,500 pounds exported during the twelve months ending with June of the year preceding.

TABLE FOR FINDING THE VALUE OF HAY.

Hay exporters are looking forward to the best foreign trade they have ever had and the trade in all parts of the country is picking up, so it is probable that many country grain dealers and elevator men who have never handled hay will go into the business this year.

Every dealer who proposes to handle hay should prepare to facilitate the computing of values by posting the tables given herewith upon a piece of thick cardboard and hanging beside the scale beam. By

LBS.	\$4.00	\$5.00	\$6.00	\$7.00	\$8.00	\$9.00	\$10.00
10	.02	.03	.03	.04	.04	.05	.05
15	.03	.04	.05	.05	.06	.07	.08
20	.04	.05	.06	.07	.08	.09	.10
25	.05	.06	.08	.09	.10	.11	.13
30	.06	.08	.09	.11	.12	.14	.15
40	.08	.10	.12	.14	.16	.18	.20
50	.10	.13	.15	.18	.20	.23	.25
60	.12	.15	.18	.21	.24	.27	.30
70	.14	.18	.21	.25	.28	.32	.35
80	.16	.20	.24	.28	.32	.36	.40
90	.18	.23	.27	.32	.36	.41	.45
100	.20	.25	.30	.35	.40	.45	.50
200	.40	.50	.60	.70	.80	.90	1.00
300	.60	.75	.90	1.05	1.20	1.35	1.50
400	.80	1.00	1.20	1.40	1.60	1.80	2.00
500	1.00	1.25	1.50	1.75	2.00	2.25	2.50
600	1.20	1.50	1.80	2.10	2.40	2.70	3.00
700	1.40	1.75	2.10	2.45	2.80	3.15	3.50
800	1.60	2.00	2.40	2.80	3.20	3.60	4.00
900	1.80	2.25	2.70	3.15	3.60	4.05	4.50
1000	2.00	2.50	3.00	3.50	4.00	4.50	5.00
1100	2.20	2.75	3.30	3.85	4.40	4.95	5.50
1200	2.40	3.00	3.60	4.20	4.80	5.40	6.00
1300	2.60	3.25	3.90	4.55	5.20	5.85	6.50
1400	2.80	3.50	4.20	4.90	5.60	6.30	7.00
1500	3.00	3.75	4.50	5.25	6.00	6.75	7.50
1600	3.20	4.00	4.80	5.60	6.40	7.20	8.00
1700	3.40	4.25	5.10	5.95	6.80	7.65	8.50
1800	3.60	4.50	5.40	6.30	7.20	8.10	9.00
1900	3.80	4.75	5.70	6.65	7.60	8.55	9.50
2000	4.00	5.00	6.00	7.00	8.00	9.00	10.00

putting card in frame and covering with glass it can be used for an indefinite time. The use of these tables will save time and prevent many errors in multiplying.

The price per ton of 2,000 pounds being known, it is very easy to find the value of any fraction of a ton at \$4 to \$18 per ton. If a farmer has 1,565 pounds of

LBS.	\$11.00	\$12.00	\$13.00	\$14.00	\$15.00	\$16.00	\$17.00	\$18.00
10	.06	.06	.07	.07	.08	.08	.09	.09
15	.08	.09	.10	.11	.11	.12	.13	.14
20	.11	.12	.13	.14	.15	.16	.17	.18
25	.14	.15	.16	.18	.19	.20	.21	.23
30	.17	.18	.20	.21	.23	.24	.26	.27
40	.22	.24	.26	.28	.30	.32	.34	.36
50	.28	.30	.33	.35	.38	.40	.43	.45
60	.33	.36	.39	.42	.45	.48	.51	.54
70	.39	.42	.46	.49	.53	.56	.60	.63
80	.44	.48	.52	.56	.60	.64	.68	.72
90	.50	.54	.59	.63	.68	.72	.77	.81
100	.55	.60	.65	.70	.75	.80	.85	.90
200	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80
300	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70
400	2.20	2.40	2.60	2.80	3.00	3.23	3.40	3.60
500	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50
600	3.30	3.60	3.90	4.20	4.50	4.80	5.10	5.40
700	3.85	4.20	4.55	4.90	5.25	5.60	5.95	6.30
800	4.40	4.80	5.20	5.60	6.00	6.40	6.80	7.20
900	4.95	5.40	5.85	6.30	6.75	7.20	7.65	8.10
1000	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00
1100	6.05	6.60	7.15	7.70	8.25	8.80	9.35	9.90
1200	6.60	7.20	7.80	8.40	9.00	9.60	10.20	10.80
1300	7.15	7.80	8.45	9.10	9.75	10.40	11.05	11.70
1400	7.70	8.40	9.10	9.80	10.50	11.20	11.90	12.60
1500	8.25	9.00	9.75	10.50	11.25	12.00	12.75	13.50
1600	8.80	9.60	10.40	11.20	12.00	12.80	13.60	14.40
1700	9.35	10.20	11.05	11.90	12.75	13.60	14.45	15.30
1800	9.90	10.80	11.70	12.60	13.50	14.40	15.30	16.20
1900	10.45	11.40	12.35	13.30	14.25	15.20	16.15	17.10
2000	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00

hay on his wagon and the dealer has bought it at \$7 per ton, he finds by looking across the table from 1,500 pounds to the column at the top of which is \$7 that the value of 1,500 pounds at \$7 per ton is \$5.25, the value of 60 pounds .21, and the value of 5 pounds .02, making a total of \$.518. If the price was \$7.50 per ton he would also find the value of 1,565 pounds at 50 cents per ton and add to \$.518 the value at \$7 per ton. To find the value at 50 cents, first find it at \$5, and take one-tenth of that sum. The value of 1,500 pounds at \$5 is \$3.75, at 50 cents it is .375.

The value of 60 pounds at \$5 is .15, and 50 cents it is .015, making the value of 1,565 pounds at 50 cents, 39 cents, which sum added to \$.518 gives \$5.87, the value of 1,565 pounds at \$7.50.

To find the value of any fraction of a ton at \$7.40, \$7.60, \$7.70, \$7.80 or \$7.90, find the value at \$7 and add to it one-tenth the value at \$4, \$6, \$7, \$8 or \$9.

To find the value at \$7.30 add 1-30 of the value at \$9 to the value at \$7.

To find the value at \$



[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

INTENDS TO BUILD.

Editor American Elevator and Grain Trade:—I intend to build an elevator at Gifford, Ill., of about 20,000 bushels' capacity, this fall, and do business there, so I want to keep posted on current affairs pertaining thereto. Inclosed you will please find \$1, for which send me the AMERICAN ELEVATOR AND GRAIN TRADE. Please send me the July number.

Very respectfully, W. A. WATSON.
St. Joseph, Ill.

THE CENTRAL SYSTEM.

Editor American Elevator and Grain Trade:—We are pleased to note that the central system as applied to the grain trade is receiving a part of the attention it deserves, and predict that once tried no one would wish to return to the complicated and expensive plan now in general use all through the eastern section of the country. Keep the central ball rolling. Please renew our subscription to the AMERICAN ELEVATOR AND GRAIN TRADE and send us Davis' Grain Tables.

INKSTER BROS. & CO.

Davenport, Wash.

HOW TO BAILE HAY FOR EXPORT.

Editor American Elevator and Grain Trade:—Hay for export must be pressed in perpetual bales so as not to exceed 10 feet cubic measurement to the bale; $\frac{1}{2}$ bales should weigh not less than 100 pounds to the bale and $\frac{1}{2}$ bales not less than 160 pounds to the bale. They should be put up with three wires so as to insure no breakage in handling.

England, Germany, Belgium, Holland and Switzerland prefer clover mixed hay, and France No. 1 timothy.

Yours truly, THEO. P. HUFFMAN & CO.
New York, N. Y.

ILLINOIS ITEMS.

Editor American Elevator and Grain Trade:—Harrwood & Dode of Bradford, Ill., have just purchased a $\frac{1}{2}$ Caldwell Charter Gas Engine for their new elevator at that place. R. W. Williams & Son of Sheffield, Ill., have just ordered a 6-horse power Witte Gas Engine to be placed in their elevator at Sheffield. Nicewander & Son of Penfield, Ill., have ordered a 6-horse power Witte Gasoline Engine for their elevator, which they are repairing.

W. Rockwell's elevator at Saybrook, Ill., was burned July 5. The loss is \$2,500, and insurance \$1,700. About 5,000 bushels of corn was burned. They will rebuild at once. The Goodwine Grain Company of Goodwine, Ill., is thoroughly overhauling its elevator and putting in new machinery:

Yours truly, C. T. HIGBEE.
Saybrook, Ill.

CHANGE IN FIRM.

Editor American Elevator and Grain Trade:—Please send us the AMERICAN ELEVATOR AND GRAIN TRADE for one year.

Mr. James L. Morrison having purchased the entire interest of Mr. Risser at Kentland and Raub, Ind., and Effner, Ill., has formed a co-partnership with Warren T. McCray, under the firm name of McCray & Morrison, who will continue the grain business at the above points. Mr. McCray, who has had complete control of the business for the past three years, will retain full management of the business, and will be pleased to continue dealing with all their old customers and friends.

The crop of oats in this vicinity has just been harvested in excellent condition. The yield will be fair and the quality will please you. Please send us your orders. We guarantee satisfaction. Hoping to be

able to have the patronage of all our friends, and to make many new ones, we are

Respectfully, McCRAY & MORRISON.
Kentland, Ind., Aug. 1, 1893.

OUR BOSTON LETTER.

Editor American Elevator and Grain Trade:—We have had better business the past month than for some months, but the bulk of the trading was in new oats, which are reported as being very bright and heavy. New No. 2 white oats for shipment sold as low as 33 cents, which would induce most any one to buy. Owing to the money market several Chicago and Western shippers have been drawing drafts through the express companies payable in currency or Chicago exchange, but owing to the scarcity of currency and Chicago exchange at \$30 per thousand it has put a damper on business. Country houses continue to draw drafts in the regular way. Eastern people are wondering what Chicago is doing with the money spent at the fair.

RECEIPTS FOR JULY.

Articles.	1893.	1892.
Cotton Seed Meal, bushels.....	2,400	
Coru, bushels.....	1,049,524	453,382
Wheat, bushels.....	1,009,122	667,009
Oats, bushels.....	534,725	941,974
Rye, bushels.....	1,180	800
Mill Feed, tons.....	3,486	2,986
Oatmeal, sacks.....	2,790	2,432
Oatmeal, barrels.....	4,344	1,795
Cornmeal, barrels.....	8,673	11,251
Barley, bushels.....	3,760	2,400
Malt, bushels.....	122,094	118,035
Hops, bales.....	564	151
Peas, bushels.....	1,110	23,953
Flour, barrels.....	92,676	95,354
Flour, sacks.....	198,928	224,211
Hay, ears.....	2,403	1,413
Straw, ears.....	100	64

EXPORTS FOR JULY.

Articles.	1893.	1892.
Wheat, bushels.....	892,086	443,135
Corn, bushels.....	559,031	117,271
Oats, bushels.....		124,276
Peas, bushels.....		16,024
Buckwheat, bushels.....		1,115
Cornmeal, barrels.....	2,895	2,472
Oatmeal, barrels.....	215	705
Oatmeal, sacks.....	1,455	2,272
Flour, sacks.....	215,257	220,649
Flour, barrels.....	24,914	22,507
Mill Feed, sacks.....	2,850	not taken
Hay, bales.....	43,060	not taken

Frank Fitts, formerly with Mark Shultis, has formed a partnership with A. H. Tarbell to do a grain and feed business.

August 7 Mr. H. P. Mulhall received the first car of new oats as usual. They were shipped by W. W. Alder, Lafayette, Ind., and were daisies, grading No. 1 clipped, and sold for 41 cents on track.

Yours, etc., BUNKER HILL.

Queries and Replies.

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column.

No. 1. Would 2x4 Cribbing Be Strong Enough?—We wish to inquire if an elevator bin 20 feet deep and 9 feet square, built of 2x4 hemlock, can be filled with wheat and not bulge. Or, in other words, would a bin of these dimensions built of the 2x4 cribbing be safe?—B. B.

No. 2. What is Cash Price of Meal and Middlings?—I wish to purchase nine tons bolted meal from prime yellow corn, also nine tons fancy white middlings all sacked and shipped in one car. What will be your lowest cash price delivered to my place per ton?—W. C. SIMONS, Arlington, Wayne Co., Pa.

No. 3. How to Drive Inclined Elevator Leg?—Will some of the readers inform me through the columns of this journal whether a chain sprocket elevator with incline leg should be run from bottom or top of leg? I thought it should be run from the top, but some differ with me. Please give me an opinion.—R. V. WILSON, North Hawarden, Ia.

E. J. Northcutt of Pullman, Wash., has counted 726,000 grains in a bushel of wheat.

Points and Figures.

Out of sight—three days' grace on a draft.

Goes against the grain—bear drivers on the wheat market.

Hayseed is getting too expensive even to wear in the hair.

A tent made of corn is exhibited by the state of Iowa at the World's Fair in the Agricultural Building.

The old grain weighers at Louisville, Ky., were recently reappointed by the directors of the board of trade.

A liberty bell and chair, made of corn, are shown in the Agricultural Hall at the World's Fair by Pennsylvania.

New Orleans received the first new rice on July 26. The lot consisted of 24 sacks of rough rice from Plaquemines parish, and was sold by auction for \$5.75 per barrel.

A carload of Kansas grains and grasses was recently shipped from Topeka by Major T. J. Anderson of the Rock Island road, to decorate the state's building at the World's Fair.

Count Paresi—"Hav' ze Mees Pruyn a dot?" Bond—"She had until her father went short on May wheat." Count Paresi—"Ah, I zee; ze dot stood onlee for von peeriod."—*New York Sun*.

Farmers in the neighborhood of Fostoria, O., are feeding wheat to the hogs in preference to selling it at the present low prices. With the prices of hogs ruling as at present they can realize \$1.00 per bushel for wheat by feeding.

Grain bags will be furnished farmers in Eastern Washington at the unprecedently low price of six cents by the state penitentiary. The directors recently reduced the price a half cent to this figure at the request of farmers.

A shipment of Wisconsin hay to Europe has been arranged for to meet the shortage in the fodder crops of the countries of the old world. About 800 tons has been taken by the steamer Frank Vane from Manitowoc, Wis., to Buffalo.

Broom corn valued at \$13,574 was exported in the month of June, against \$5,566 exported in June, 1892; and for the twelve months ending with June 30 broom corn valued at \$163,105 was exported, as compared with \$218,133 exported during the twelve months ending with June of the preceding year.

A writ of injunction was granted recently by Judge Dundy in the United States Court at Omaha, Neb., restraining the state board of transportation from reducing the freight rates agreed upon by the railroads of the state in the readjustment of their rates to meet the requirements of the maximum rate law passed by the last legislature.

A farmer in Somerset County, Missouri, finds that his straw is worth more than his wheat. He produced 630 bushels of wheat on 35 acres, or about 18 bushels to the acre, which at the price ruling when the calculation was made, indicated for the crop a value of \$12 per acre. His straw weighed two tons per acre, and was worth \$8 per ton, or \$16 per acre. The aggregate value of the grain was \$403; of the straw, \$528.

The shipments of grain from the country, against which drafts are executed, should be conducted on the most careful lines. Recently quite a number of drafts have been allowed to return to the shipper because the advices accompanying such drafts were not specific and plain in describing the property on which advances were desired. It is suggested to country shippers in making shipments on which they desire advances by draft or otherwise, that they state fully the car number, initial, the quantity of grain (as precisely as possible) loaded in car, and the grain it is calculated to inspect. To insure prompt payment of draft, the bill of lading must accompany the draft and notice of shipment and draft must be made, so as to leave ample margin for the protection of parties who are expected to make advances.—*Trade Bulletin, Chicago*.

CROP CONDITIONS.

NORTH DAKOTA, REYNOLDS, GRAND FORKS Co., July 26.—The condition of wheat is fair, of oats good, of barley poor. The acreage of wheat is large, of oats average, of barley small. Small stocks of wheat, oats and barley each are on hand.

OREGON, ENTERPRISE, WALLA Walla Co., July 26.—Wheat and rye are in poor condition. The condition of oats is good, and of barley average. The acreage of wheat is large, of rye average, and of oats and barley small. EDWARD PARISH.

SOUTH DAKOTA, ABERDEEN, BROWN Co., August 11.—Wheat, oats and barley are in poor condition. The condition of corn is good. The acreage of wheat, corn, oats and barley is average. The stocks on hand of wheat are small. McCULLY, WEBSTER & Co.

INDIANA, BARNARD, PUTMAN Co., August 10.—Wheat is in fair condition. The condition of corn and oats is poor. The acreage of wheat and corn is average; acreage of oats small. Of wheat the stocks on hand are average; of corn and oats small. JESSE EGERS & Co.

OREGON, EAGLE CREEK, CLACKAMAS Co., July 28.—The condition of spring wheat and oats fair, condition of rye and barley good. The acreage of wheat is average, of corn small, of oats large, and of rye and barley small. The stock on hand of wheat, corn, oats, rye and barley is small.

COLORADO, SAGNACHE, SAGNACHE Co., August 8.—Wheat is in average condition, oats fair, and rye and barley in poor condition. The acreage of wheat, corn, oats and rye is small, of barley average. The stock on hand of wheat is large, and of corn, oats, rye and barley small. GEO. ROBERTSON.

MICHIGAN, BRIGHAM, LIVINGSTON Co., July 10.—The condition of wheat and rye is average, of oats and barley fair, and of corn poor. The acreage of wheat and barley is small, and of corn, oats and rye average. The stocks on hand of wheat and rye are average, and of corn, oats and barley small.

SOUTH DAKOTA, MT. VERNON, DAVISON Co., August 11.—The condition of wheat is average, of corn and oats poor, of rye and barley fair. The acreage of wheat, oats and barley is average, of corn large, and of rye small. The stocks of wheat on hand are small. There are no stocks on hand of corn, oats, rye or barley. WM. G. MILNE.

ILLINOIS, RICHMOND, MCHENRY Co., August 11.—A welcome rain fell last night and this morning, but too late to save the corn, which will turn out only a half crop at best. Early sown grains have done fairly well, but the late planted are very poor. A large acreage of oats has been destroyed by worms cutting off the heads. R. R. ROSSING.

NEBRASKA, CLEAR WATER, ANTELOPE Co., August 1.—The condition of wheat, oats, rye and barley is fair. Condition of corn is average. There is a large acreage of corn and oats, an average acreage of wheat and barley, and small acreage of rye. The stocks on hand of wheat and corn are large, of oats and barley average, and of rye small.

MINNESOTA, BLOOMING PRAIRIE, STEELE Co., August 10.—The condition of wheat is fair. Condition of corn good, with condition of oats and barley average. The condition of rye is poor. The acreage of wheat is small, of corn, oats, rye and barley average. The stocks on hand of wheat and oats are average, of corn, rye and barley small. J. C. BRAINERD & Co.

KANSAS, ANTHONY, HARPER Co., August 4.—Wheat crop of this county will be about 1,000,000 bushels, or 250,000 less than last year. The quality is not up to average, one-third will not grade better than No. 3, balance will grade No. 2. Farmers are rapidly disposing of it at 35 cents a bushel. Corn crop will be only two-thirds average crop. Corn is not selling at 15 cents per bushel. W. E. POORMAN.

NEBRASKA, BELVIDERE, THAYER Co., August 11.—There is a very light crop of wheat and oats. Corn cannot make over one-half to two-thirds crop from now on, even with plenty of rain, as it has been needing rain badly. Seasonable weather has gone in streaks this season. Wheat, corn, oats and rye are in poor condition. Of barley there is none. The acreage of wheat and corn is large, of oats average, and of rye small. The stocks on hand of wheat are small, of corn average, and of oats and rye small. A. E. HUNT.

WASHINGTON.—The section known as the Walla Walla country, Wash., it is estimated will produce this season 6,000,000 bushels of wheat; 3,000,000 sacks will be required to market the crop, entailing an expenditure at 6½ cents each of \$195,000 for this item alone, while the total amount of capital necessary for handling the wheat will be immense. In Walla Walla county the aggregate yield is placed at 3,738,150 bushels, from an acreage of 107,170 acres; 3,505,150 bushels of this amount will be exported after deducting 330,000 bushels for seed and food, and adding 100,000 bushels carried over. Should the average yield per

acre reach thirty bushels, as many estimate it will, the yield of Walla Walla county will reach 4,485,780 bushels.

HAY.—The government crop report for August says the season has been generally favorable for the growth of grasses and clover. There has been a sufficient supply of moisture in most localities except in the region lying between the Mississippi River and the Rocky Mountains. The hay crop, on the whole, is large, although in some important regions unfavorable conditions caused a reduction of the crop. The lowest condition of timothy on August 1 is reported for South Dakota 66, New Jersey 67, Colorado 70, and Nebraska 72. The damage is generally attributed to drought during spring and summer. Some localities report serious losses caused by the prevalence of grasshoppers or the army worm. In others the plants were frozen out during the preceding winter. A generally high condition prevails in New England, New York, Florida, Louisiana, in the Ohio Valley, and on the Pacific slope. The general average of condition for the timothy crop is 89.6, as compared with 93.2 in 1892, and 90.9 at the corresponding date in 1891. The crop has generally been secured in good condition. The product of clover hay was large in many localities, especially in Louisiana, Florida, and on the Pacific slope. Nebraska, Kansas, South Dakota, Illinois, Missouri and Texas report damage by drought and grasshoppers. The weather conditions were generally favorable for harvesting and stacking, insuring a clover crop of fine quality.

GOVERNMENT CROP REPORT.—The August report of the statistician of the Department of Agriculture shows that the condition of corn has declined a little over 6 per cent. during the last month, the average for the entire month being 87, against 93.2 for the month of July. This decline is due in the main to the drought, which has proved both extensive and persistent. While in some parts of the country the continued dry weather has injured the crop beyond recovery, it is nevertheless true as to the larger portion of the area devoted thereto that improvement is not only possible but with a sufficient rainfall through the month of August will be assured. The averages in the principal states are: Ohio 85, Indiana 79, Illinois 81, Iowa 102, Missouri 95, Kansas 82, Nebraska 84. There is a considerable falling off in the condition of spring wheat in the last month amounting to something over 10 points, the average condition the present month being 67 as against 77.4 for the month of July. The condition by states is as follows: Wisconsin 70, Minnesota 67, Iowa 87, Nebraska 58, South Dakota 63, North Dakota 66. This decline of 10 points is the result of the too high temperature and deficient rainfall in the spring wheat states. The drought has prevailed over extensive areas and has done much damage. Much injury also has been done this crop by the chinch bug and rust in several of the states. The condition of spring rye in August is 78.5 as against 89 in the month of July. The condition of oats has fallen 10 points since the July report, being 78.3 as compared with 88.8 last month, while in August, 1892, it stood at 86.2. It is the lowest condition reported in August for many years, and is due to a cold, wet spring, succeeded by continuous dry, hot weather during the latter part of June and the whole of July. The August returns for barley show a slight decline in condition from that of last month, being 84.6, against 85.3 in July, and precisely the same as it was in the month of June. The acreage of buckwheat is reported at 96.3 as compared with 1892, and condition at 88.8. The condition of potatoes has declined nearly 9 points in the last month and now stands at 86. Condition in August has only been lower twice in the last decade. The general drought has been the cause of this falling off, and rain is needed badly to prevent further disastrous losses. The condition of the timothy crop is 89.4 as compared with 93.2 in 1892. The hay crop on the whole is large and has generally been secured in good condition, although in some important regions unfavorable conditions caused a reduction of the crop.

OUR CARD BASKET

We have received calls from the following gentlemen prominently connected with the grain and elevator interests, during the month:

C. H. Adams, of the E. H. Pease Mfg. Co., Racine, Wis.

D. C. Lusk of Brooks, Griffith & Co., Minneapolis, Minn.

C. Harvey of Brooks, Griffith & Co., Minneapolis, Minn.

David Greene, secretary Case Manufacturing Company, Columbus, O.

Col. James Watson, president Case Manufacturing Company, Columbus, O.

F. D. Wolfrom, Rochester, N. Y., representing Huntley, Crauson & Hammond, Silver Creek, N. Y.

Two cars of new timothy seed appeared on the Chicago market August 7. They were from Iowa, and the seed was of very nice quality, being bright, quite clean and not hulled to any material extent.

IMPORT AMERICAN CORN.

Our corn exports for the past crop year amounted to about four-sevenths of the amount exported during the preceding crop year. Corn aggregating 815,557 bushels was exported to the United Kingdom during the month of June, against 1,728,185 bushels exported in June, 1892; and in the twelve months ending with June, 17,124,238 bushels were exported, as compared with 36,503,653 bushels exported during the corresponding term of 1892. To Germany 533,876 bushels were exported in June, against 514,873 bushels exported in June, 1892; and during the twelve months ending with June, 5,311,080 bushels were exported, as compared with 13,901,239 bushels exported during the corresponding term of 1892. France received from the United States in June 127,260 bushels and none in June, 1892. During the twelve months ending with June France took from us 1,198,492 bushels, as compared with 2,034,257 bushels during the twelve months ending with June, 1892. To other countries in Europe our exports of corn during June were 812,768 bushels, against 311,309 bushels exported during June, 1892; and for the twelve months ending with June the exports of corn amounted to 6,626,207 bushels, as compared with 17,152,028 bushels exported during the corresponding period of 1892.

The exports of corn to Mexico during June were 416,190 bushels, against 176,429 bushels exported in June, 1892; and during the twelve months ending with June the exports of corn were 6,960,356 bushels, as compared with 754,548 bushels exported during the corresponding term of 1892.

To the Central American states and British Honduras our exports of corn during the twelve months ending with June 30 were 144,371 bushels, against 129,830 bushels exported during the twelve months ending June 30, 1892; to Cuba the exports amounted during the twelve months ending with June 30 to 1,041,474 bushels, against 627,177 bushels exported during the twelve months ending June 30, 1892; to Puerto Rico the exports during the twelve months ending June 30 aggregated 23,874 bushels, as compared with 37,237 bushels exported during the corresponding term of 1892; to Santa Domingo during the twelve months ending June 30 the exports amounted to 5,646 bushels, as compared with 2,104 bushels exported during the corresponding term of 1892; to the other West Indies and Bermuda the exports aggregated 538,829 bushels during the twelve months ending with June, against 513,502 bushels exported during the corresponding term of 1892; to South America our exports of corn during the twelve months ending with June 30 amounted to 489,542 bushels, against 200,831 bushels exported during the same term of 1892; to other countries the exports during the twelve months ending with June 30 were 22,188 bushels, against 21,820 bushels exported during the corresponding month of 1892.

The exports of corn to the British North American possessions during the month of June amounted to 2,088,170 bushels, against 262,613 bushels in June preceding; and during the twelve months ending June 30 the exports amounted to 6,548,607 bushels, as compared with 3,573,623 bushels for the same period of the year preceding.

FOREIGN BUYERS OF AMERICAN WHEAT.

According to the last report of the Bureau of Statistics, wheat, aggregating 5,359,225 bushels, was exported to the United Kingdom during the month of June, against 5,055,964 bushels exported during the month of June, 1892; and for the twelve months ending with June 72,513,134 bushels were exported, as compared with 67,293,960 bushels exported during the corresponding months of the year preceding. Our exports of wheat to Germany during June were 509,675 bushels, against 1,324,231 bushels exported in June preceding; and for the twelve months ending with June the exports of wheat amounted to 3,136,326 bushels, as compared with 7,635,926 bushels exported during the same period of the year preceding.

To France the exports of wheat during June aggregated 741,961 bushels, against 100,534 bushels exported in June preceding; and for the twelve months ending with June the exports of wheat amounted to 7,494,384 bushels, as compared with 12,139,488 bushels exported during the same period of the year preceding. Other countries in Europe received from us during June 2,707,808 bushels of wheat, against 2,532,260 bushels in June preceding; and during the twelve months ending with June they received 27,891,398 bushels, as compared with 34,642,343 bushels during the corresponding period of the year preceding.

To the British North American possessions the exports of wheat during June amounted to 1,295,559, against 278,651 bushels exported in June preceding; and during the twelve months ending with June the exports amounted to 5,544,365 bushels, against 5,219,086 bushels exported during the corresponding months of the year preceding.

During the twelve months ending with June the exports of wheat to the Central American states and British Honduras amounted to 51,639 bushels, against 58,306 bushels exported during the same period of the year preceding. To the West Indies and Bermuda

the exports of wheat for the twelve months ending with June were 13,749 bushels, against 10,700 bushels for the same period of the year preceding. To Brazil the exports for the twelve months ending June 30 amounted to 63,928 bushels, against 161,622 bushels for the same period of the year preceding. To other countries in South America the exports during the twelve months ending with June were 9,813 bushels, against 65,862 bushels for the corresponding period of the year preceding.

To Asia and Oceanica our exports of wheat aggregated 16,050 bushels during the twelve months ending with June, as compared with 29,922 bushels exported during the corresponding period of the year preceding. To other countries the wheat exports amounted to 386,323 bushels during the twelve months ending with June, as compared with 20,136 bushels exported during the same period of the year preceding.

Latest Decisions.

Liability of Carriers in Transportation of Stock.

The Texas Court of Civil Appeals recently held in the case of the L. & G. N. R. Co. vs. Anderson, which was an action against a railroad company for delay in the transportation of live stock, where it did not deny under oath an allegation in the petition that the contract of shipment was executed by a connecting carrier as agent, the contract is admissible in evidence, though it does not show on its face that it was executed for or on behalf of the company. A carrier who receives live stock for shipment cannot escape liability for injuries by delay in their transportation on the ground that there was an unusual rush of business on its road.

Falling of Conveyor—Liable for Damages.

In the case of L. S. Sullivan et al. against the Lake Superior Elevator Company, Judge Nelson of the United States District Court has handed down a decision holding the elevator company liable for damages sustained by the steamer D. W. Rush by the falling of the conveyor trestle between elevators B and C in Duluth on May 19 of last year. The steamer was moored at one of the docks at Duluth, when it became advisable for her to pull down to another berth and she was moored opposite a trestle built between two elevators. The captain had notice that the trestle was not safe, and, in fact, it soon fell on the boat. The owners of the boat brought an action in admiralty against the elevator company. Judge Nelson holds that the owners of the steamer, having had notice, were equally culpable and so divided the damages between the parties.

Telegram—Non-Delivery Damages.

In the recent case of the Western Union Telegraph Company vs. Lyman, the Texas Court of Civil Appeals held the appellant liable for failure to deliver a message sent from Lampasas, Tex., to Norman, I. T. It appeared that the message was delivered to the Erie Company at Lampasas, by it transmitted to Austin, and accepted by the appellant. The court held that the fact the message was accepted in the usual course of business for transmission to its destination brought about an implied contractual relation with the appellee, saying: "The right to hold appellant liable for its negligence does not depend upon the fact that the agent of the Erie had the right to make a contract binding upon appellant, but the right can rest upon the implied contract between appellee and appellant resulting from the receiving and undertaking to deliver the message by appellant in the usual course of business. If it was a part of the contract that the message should be repeated in order to guard against errors in transmitting it, and the message was not repeated, it would be no defense in this case, because the error in transmitting could not have been corrected by repeating. Repeating a message is not to guard against delay in its delivery, but to correct any error in transmission. The sender was not required to repeat a message that was not received."

Carriers Must Not Discriminate Between Shippers.

The decision of the United States Supreme Court in the case of the Union Pacific vs. Goodridge holds that all shippers must be treated by carriers with absolute equality, and distinctly recognizes the right of lawmaking bodies to regulate railways through railway commissions, especially that feature of state and federal regulation which requires carriers to obtain permission of the commission before granting lower rates to persons and places. The case was brought under a statute of Colorado, which prohibits unjust discrimination in practically the same language as that employed in the Interstate Commerce Law. The same rate, \$1 a ton, was in effect to Denver from both Erie and Marshall, but while Erie coal paid the tariff rate Marshall coal was only charged 60 cents per ton, a rebate of 40 cents from the schedule rate. The controlling effect of this decision as a precedent in cases, both civil and criminal, arising under the interstate

commerce law is shown by the following extract from the opinion, which is by Justice Brown:

This act was intended to apply to interstate traffic the same wholesome rules and regulations which Congress two years thereafter applied to commerce between the states, and to cut up by the roots the entire system of rebates and discriminations in favor of particular localities, special enterprises or favored corporations, and to put all shippers on an absolute equality, saving only a power, not in the railroad company itself, but in the railroad commissioner, to except "special cases designed to promote the development of the resources of this state."

The statute recognizes the fact that it is no proper business of a common carrier to foster particular enterprises or to build up new industries, but deriving its franchise from the legislature and depending upon the will of the people for its very existence, it is bound to deal fairly with the public, to extend them reasonable facilities for the transportation of their persons and property and to put all its patrons upon an absolute equality. So opposed is the policy of the act to secret rebates of this description that it requires a printed copy of the classification and schedule of rates to be posted conspicuously in each passenger station for the use of the patrons of the road, that everyone may be apprised not only of what the company will exact of him for a particular service, but what it exacts of everyone else for the same service, so that in fixing his own prices he may know precisely with what he has to compete.

To hold a defense thus pleaded to be valid would open the door to the grossest frauds upon the law and practically enable the railroad to avail itself of any consideration for a rebate which it considers sufficient and to agree with the favored customer upon some fabricated claim for damages which it would be difficult, if not impossible, to disprove. For instance, under the defense made by this company there is nothing to prevent a customer of the road who has received a personal injury from making a claim against the road for any amount he chooses, and in consideration thereof, and of shipping all his goods by that road, receiving a rebate for all goods he may ship over the road for an indefinite time in the future. It is almost needless to say that such a contract could not be supported. There is no doubt of the general proposition that the release of an unliquidated claim for damages is a good consideration for a promise as between the parties, and if no one else were interested in the transaction that rule might apply here, but the legislature, upon grounds of public policy and for the protection of third parties, has made certain requirements with regard to equality of rates which in their practical application would be rendered nugatory if this rule were given full effect.

IMPORTS OF FOREIGN BREAD-STUFFS.

The total value of breadstuffs imported during the month of June was \$194,000, against an amount valued at \$244,691 imported during the month of June, 1892. For the twelve months ending with June 30 breadstuffs, valued at \$2,612,697, were imported, as compared with \$4,631,408 imported during the corresponding months of 1892.

The imports of barley for the month of June were 15,512 bushels, as compared with 39,520 bushels for June, 1892. During the twelve months ending with June the imports of barley were 1,970,129 bushels, valued at \$921,605, against 3,146,328 bushels, valued at \$1,592,040, during the twelve months ending with June, 1892. The imports of corn were 1,881 bushels, valued at \$1,265, during the twelve months ending with June, as compared with 15,290 bushels, valued at \$10,752, imported during the corresponding period of 1892.

The imports of oats during the twelve months ending with June 30 were 21,308 bushels, valued at \$8,897, against 20,208 bushels, valued at \$8,224, for the corresponding period of 1892. There were 8,598 bushels of rye, valued at \$7,055, imported during the twelve months ending with June 30, as compared with 83,537 bushels, valued at \$67,507, imported during the twelve months ending June 30, 1892.

The imports of wheat during the month of June were 142,509 bushels, as compared with 275,770 bushels imported during the month of June, 1892; and for the twelve months ending June 30, 966,282 bushels of wheat, valued at \$707,053, were imported, against 2,459,602 bushels, valued at \$1,955,385, imported during the corresponding number of months of 1892.

The total value of foreign breadstuffs exported during June was \$159, against an amount valued at \$177,301, exported during June, 1892. For the twelve months ending June 30 breadstuffs, valued at \$425,279, were exported, as compared with an amount valued at \$1,753,892 exported during the same period of 1892.

For the twelve months ending with June 30, 33,983 bushels of imported barley were exported, against 504,301 bushels exported during the corresponding period of the year preceding. No imported corn was exported during the twelve months ending with June, as compared with 9,731 bushels exported during the twelve months ending with June preceding. For the twelve months ending with June no imported oats

were exported, as compared with 6,966 bushels exported during the twelve months ending with June, 1892. No imported rye was exported during the twelve months ending with June, against 20,347 bushels exported during the corresponding period of 1892. The exports of imported wheat amounted to 572,750 bushels during the twelve months ending June 30, as compared with 1,838,370 bushels exported during the twelve months ending with June, 1892.

LATE PATENTS.

Issued on July 4, 1893.

GRAIN DOOR.—John Sheridan, Quincy, Ill. (No model.) No. 500,963. Serial No. 444,566. Filed Aug. 30, 1892.

GAS ENGINE.—Federico Cordenous, Padua, Italy. (No model.) No. 500,754. Serial No. 384,058. Filed March 6, 1891.

POWER TRANSMISSION.—Albert L. Ide, Springfield, Ill. (No model.) No. 500,579. Serial No. 140,481. Filed July 19, 1892.

SEPARATOR SIEVE.—Charles Kind, Friendship, Wis. (No model.) No. 500,714. Serial No. 451,255. Filed Nov. 7, 1892.

Issued on July 11, 1893.

FLIGHT FOR ENDLESS CONVEYORS.—Fred Miller, Corning, O. (No model.) No. 501,289. Serial No. 460,968. Filed Feb. 4, 1893.

APPARATUS FOR CONVEYING AND DRIVING.—Sheldon H. Bassett, Brooklyn, N. Y., assignor to himself and Royal M. Bassett, Birmingham, Conn. (No model.) No. 501,048. Serial No. 433,732. Filed May 20, 1892.

GRAIN VENTILATOR.—Samuel A. Towel, Salisbury, N. C., assignor of one-half to James B. Lanier, same place. (No model.) No. 501,116. Serial No. 465,335. Filed March 9, 1893.

HAY OR COTTON PRESS.—Samuel M. Neely, Smith's Turn Out, S. C. (No model.) No. 501,435. Serial No. 441,165. Filed July 25, 1892.

Issued on July 18, 1893.

PROCESS OF REMOVING PILES OF MATERIAL.—James M. Dodge, Philadelphia, Pa., assignor to the Link Belt Engineering Company, same place. (No specimens.) No. 501,770. Serial No. 464,727. Filed March 6, 1893.

CONVEYING APPARATUS.—James M. Dodge, Philadelphia, Pa., assignor to the Link Belt Engineering Company, same place. (No model.) No. 501,771. Serial No. 465,615. Filed March 11, 1893.

ELEVATOR.—Morris Kallenbach, Boddy, Ill. (No model.) No. 501,568. Serial No. 450,125. Filed Oct. 27, 1892.

GAS ENGINE.—Charles J. B. Gaume, Brooklyn, N. Y., Cecile Ganme, administratrix of said Charles J. B. Gaume, deceased. (No model.) No. 501,881. Serial No. 313,517. Filed June 7, 1892.

LOCAL ELEVATOR FOR NEW ORLEANS.

The Illinois Central Railroad proposes to build a new elevator. The elevator in question is intended to accommodate the local grain trade and will be located at the old Mississippi Valley depot, says the *Picayune* of New Orleans. It is proposed to equip it with all conveniences for loading and unloading cars, sacking, mixing, grading and the like, so as to make it in all respects a model local elevator.

The great advantage of this elevator will be that the expense of sacking, drayage and loss in weight will be saved to the handlers of grain, as the railroad will bring the grain here in bulk and store it direct from the cars in the elevator where it will remain until finally sold for consumption, when it will be sacked from the elevator and put direct into cars for shipment to the country.

One of the leading advantages of the new addition to local trade facilities will be the relief it will give to the general freight depots and the public warehouses. The depots are now encumbered at times with large amounts of grain in sacks, which is allowed to remain for long periods until sold. The elevator will, moreover, afford better facilities for the protection of the grain from deterioration and loss in weight, as well as insure more perfect grading.

The new elevator, which it is expected will be ready for business early in the coming fall, promises to prove a great convenience to the local grain trade, and will materially cheapen the cost of handling grain in this market. Added to the several elevators built here during the past few years to accommodate the export grain trade, the new enterprise will do much to perfect the grain-handling facilities of New Orleans by enabling merchants to safely carry a larger stock than is now possible.

WATERWAYS

Owing to lack of funds work has been stopped on the Nicaragua Canal.

The Erie Canal cleared about 300,000 bushels of grain July 21, the largest day on record.

Ships to load wheat are scarce at San Francisco and export freight rates have gone up in consequence.

The United States has 3,348 miles of canal, the United Kingdom 3,813 miles, and France 10,385 miles.

The Erie Canal has captured the east bound wheat shipments, leaving only corn and a little oats for the railroads.

Elevator charges at Buffalo are complained of by vesselmen. In view of the dullness they claim that the charges ought to be reduced.

Electric towing has been proposed for canal boats on the Chesapeake & Ohio Canal, on a plan similar to that advocated by Gov. Flower for the Erie Canal.

By mistake a cargo of 60,000 bushels wheat on the schooner Nicholson was unloaded at Erie instead of Buffalo, whither it had been consigned on through bill of lading to Liverpool.

The Kingston and Montreal Forwarding Company has had over 4,000,000 bushels of grain to tranship so far this season. This exceeds last season's entire work by over 1,000,000 bushels already.

Of the four British ships which left San Francisco, Cal., grain laden, for Queenstown on a stake race March 22. Pinmore won, arriving at Queenstown July 17 after a voyage of 117 days.

Wharfage dues on hay at Montreal have been 20 cents a ton. Exporters are trying to get a reduction to 10 cents, claiming that the rate is excessively out of proportion to the charge on other goods.

The International Navigation Company has been organized at New York to establish an American line of steamships between Philadelphia and New York and European ports. The capital is \$15,000,000.

Baltimore shipped its largest grain cargo July 20 on the steamship Birdswald for Rotterdam. It consisted of 76,000 bushels of wheat, 47,143 bushels of corn, and 60,000 bushels of oats, in all 183,143 bushels.

A new plan for a canal around the Dalles on the Columbia River has been devised by Capt. W. P. Gray, whereby the cost will be only \$1,000,000, against \$4,000,000, which is the estimated cost of the project now under way.

Work has been suspended on the Chignecto Ship Railway for lack of funds. The construction has progressed so far that the road is half finished. This was to shorten the distance between ports on the St. Lawrence River and the Atlantic Coast.

The greatest single increase in freight passing through the Sault Ste. Marie Canal for the year ending June 30 was made by grain other than wheat, which jumped from 952,391 bushels to 2,446,159 bushels, making an increase of 1,493,768 bushels, or a gain of 157 per cent.

In June 8,151,116 bushels of wheat, 521,105 bushels of corn and 1,098,429 barrels of flour were carried through the Sault Ste. Marie Canal. This is a large increase over June last year, when 3,356,927 bushels of wheat, 191,040 bushels of corn and 746,436 barrels of flour were carried.

Wheat cargoes from Port Arthur to Buffalo have been overrunning. The Lansing had 322 bushels over; the Neosho 500; and the John Craig 600. The James Pickands, with a bill calling for 52,000 bushels, was found 4,000 bushels short, but upon investigation the missing quantity was found at port of shipment.

Buffalo, N. Y., is largely increasing her commerce in spite of the hard times. The grain receipts during July were over 21,000,000 bushels, the largest on record. Thus far the season's receipts aggregate over 78,000,000 bushels. Grain amounting to 19,000,000 bushels has been shipped against 11,000,000 for the same period of last year.

The shipments of grain by the Erie Canal for July were 6,835,502 bushels, against 3,591,072 bushels in the same month of 1892. From the opening of navigation to date the shipments were 19,161,301 bushels, against 11,089,697 bushels last year. The number of canal boats cleared since the canal was opened was 3,133, against 2,070 in the same period of 1892.

The drainage trustees and the Cook county congressmen held a conference recently at Chicago, Ill., regarding the improvement of the Chicago River so as to aid the commercial interests of the city, and also to enable the drainage channel to be used to the greatest extent. The main object of the conference so far as the trustees were concerned was to see if they could not get some money from the general government to

help them out. The making of the Illinois River navigable and making the present canal seven feet deep from Joliet to its terminus was also discussed.

Shipments of grain from Port Arthur to Buffalo have fallen off on account of the great loss that will ensue if the grain is damaged. The case of the steamer Sitka, reported in our last issue, has opened the eyes of the carrying trade to the possibilities. Nearly 12,000 bushels of wet wheat had to be thrown overboard because the high duty prevented its profitable disposal.

The great Manchester Ship Canal in England, which is 22 miles long and has cost \$60,000,000, will be completed and opened next spring. The city of Manchester has undertaken this work solely to reduce the cost of transportation from Liverpool. Instead of unloading all goods at Liverpool ocean vessels will pass on up to Manchester, saving one handling and the cost of reshipment.

Boat builders at Lockport, N. Y., are experiencing a boom in their business. The reason is that boatmen can now get 5 cents a bushel for all charters on wheat east bound. A canal boat has a carrying capacity of nearly if not quite 8,000 bushels. As a round trip between Buffalo and the seaboard can be made in about three weeks this admits of a good profit to the boatmen. Many boats that have been practically abandoned and tied up along the canal banks during the past decade have been sent to the yards for repairs, and many men are afforded employment thereby.

Governor Lewelling of Kansas wants the surplus products of the West sent to Europe, via the Gulf of Mexico. In 1891 only 2 per cent. of the crop of the Mississippi Valley was sent to market by way of the river and the gulf. This was a great saving in itself to the producers, but it was only nominal as compared with what it might have been had the entire 72.6 per cent., which represents the per cent. of the entire crop of the U. S. which is produced in the states tributary to the Mississippi River, been shipped that way. He figures that if the people of the West would combine and use the highway to the sea which nature has provided they would in a few years save enough to construct a great north and south railway to the gulf, and make them wholly independent, summer and winter, of the organized capital which now diverts traffic to the Atlantic ports.

RECEIPTS AND SHIPMENTS AT MINNEAPOLIS.

The receipts and shipments of grain and hay at Minneapolis, Minn., during the 4 weeks ending August 5, as compared with the same period of the preceding year, were, according to G. D. Rogers, secretary of the Chamber of Commerce, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	2,655,780	4,016,540	1,212,820	2,403,900
Corn, bushels.....	60,420	130,210	19,560	34,070
Oats, bushels.....	150,460	318,620	55,560	189,500
Barley, bushels.....	2,490	57,520	8,620	45,830
Rye, bushels.....	10,620	12,810	9,160	6,820
Flaxseed, bushels.....	7,450	75,840	9,590	99,010
Hay, tons.....	2,212	2,335	24	10
Flour, barrels.....	7,610	15,518	680,235	768,341

RECEIPTS AND SHIPMENTS AT ST. LOUIS.

The receipts and shipments of grain and hay at St. Louis, Mo., during the 4 weeks ending August 5, as compared with the same period of the preceding year, were, according to Geo. H. Morgan, secretary of the Merchants' Exchange, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	2,523,596	4,508,770	891,818	605,368
Corn, bushels.....	1,973,690	752,420	1,865,715	574,638
Oats, bushels.....	640,875	592,805	142,787	159,637
Barley, bushels.....	1,500	2,800
Rye, bushels.....	6,104	15,571	6,016	5,087
Grass Seed, sacks.....	513	352
Flaxseed, bushels.....	39,600	29,700	7,164	20,720
Hay, tons.....	10,409	8,002	1,495	1,124
Flour, barrels.....	60,617	101,871	138,508	158,008

The rice men in New Orleans, owing to the action of the Southern Pacific Railroad in granting the reduction in rates asked to San Francisco, Cal., can now place rice on the Pacific Coast at a lower price than Chinese or Japanese rice. Of late the Eastern markets—New York, Boston and others—have been buying their rice from Charleston, and consequently large stocks have been accumulating in New Orleans. This it is expected will be rapidly reduced with the Western market now opened. Strong competition is expected with Hawaiian rice, as brokers in this article have already cut the price to nearly meet the Louisiana product.

RECEIPTS AND SHIPMENTS AT MILWAUKEE.

The receipts and shipments of grain and hay at Milwaukee, Wis., during the 4 weeks ending August 5 as compared with the same period of the preceding year, were, according to Wm. J. Langson, secretary of the Chamber of Commerce, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	609,225	889,800	512,650	339,520
Corn, bushels.....	56,900	56,840	5,750	47,274
Oats, bushels.....	413,030	546,000	285,300	342,575
Barley, bushels.....	22,000	181,704	15,740	11,542
Rye, bushels.....	28,500	31,900	26,640	28,120
Flour, barrels.....	99,625	149,110	186,535	261,260

RECEIPTS AND SHIPMENTS AT PEORIA.

The receipts and shipments of grain and hay at Peoria, Ill., during the 4 weeks ending August 5, as compared with the same period of the preceding year, were, according to R. C. Grier, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	71,500	115,000	70,800	87,250
Corn, bushels.....	402,850	275,150	89,050	81,700
Oats, bushels.....	1,457,600	869,000	1,324,000	1,103,800
Barley, bushels.....	7,000	6,900	11,200	3,400
Rye, bushels.....	2,400	10,750	1,200	2,400
Spirits & Liquors, bbls.	2,543	140	12,944	17,706
Hay, tons.....	1,470	3,210	290	1,000
Flour, barrels.....	30,750	12,350	36,500	10,375
Mill Feed, tons.....	1,955	144	3,429	674
Syrup & Glucose, bbls.	1,824	650	17,345	11,197

RECEIPTS AND SHIPMENTS AT DETROIT.

The receipts and shipments of grain and hay at Detroit, Mich., during the 4 weeks ending August 5, as compared with the same period of the preceding year, were, according to Geo. M. Lane, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	1,301,389	734,088	1,520,434	429,867
Corn, bushels.....	50,084	55,898	16,451	15,935
Oats, bushels.....	221,390	147,037	13,233	6,826
Barley, bushels.....	416	44,546</	

VISIBLE SUPPLY OF GRAIN.

The following table shows the visible supply of grain Saturday, August 12, 1893, as compiled by George F. Stone, secretary of the Chicago Board of Trade:

In Store at	Wheat, bu.	Corn, bu.	Oats, bu.	Rye, bu.	Barley, bu.
Albany	32,000	30,000	8,000		
Baltimore	1,720,000	568,000	131,000	32,000	
Boston	490,000	445,000	9,000		20,000
Buffalo	1,395,000	373,000	208,000	4,000	34,000
do afloat					
Chicago	18,525,000	1,555,000	342,000	91,000	43,000
do afloat					
Cincinnati	8,000	2,000	31,000		1,000
Detroit	815,000	2,000	41,000	9,000	53,000
do afloat					
Duluth	3,815,000				
do afloat					
Indianapolis	249,000	5,000	15,000	1,000	
Kansas City	362,000	33,000	4,000	2,000	
Milwaukee	1,069,000	3,000		34,000	46,000
do afloat					
Minneapolis	8,036,000		12,000	1,000	18,000
Montreal	343,000	48,000	93,000	30,000	77,000
New York	16,147,000	371,000	247,000	61,000	
do afloat					
Oswego	380,000	26,000		7,000	
Pearl	102,000	1,000	112,000	4,000	
Philadelphia	712,000	450,000	139,000		
St. Louis	3,576,000	290,000	82,000	4,000	
do afloat					
Toledo	1,178,000	76,000	25,000	37,000	
Toronto	72,000		5,000		30,000
On Lakes	2,506,000	1,593,000	364,000		
On Canals	2,248,000	299,000			
On Miss. River	95,000	36,000		8,000	
Grand total	58,869,000	6,211,000	1,928,000	320,000	377,000
Same date last year	28,253,000	6,426,000	5,468,000	273,000	366,000

INSPECTED RECEIPTS AT CHICAGO.

According to the report of Chief Grain Inspector George P. Bunker the grain received at Chicago during the month of July was graded as follows:

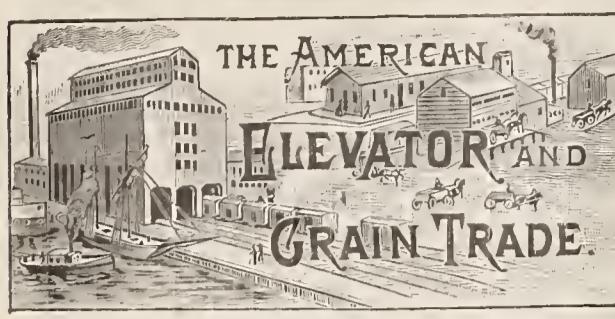
WINTER WHEAT.										
Railroad.	White.			Hard.			Red.			No Grade.
	2	3	4	1	2	3	1	2	3	
C., B. & Q.	3	5		53	38		6	49	21	4
C., R. I. & P.	2	1		4	16		17	7	7	
C. & A.	2			18	39		5	160	45	12
Illinois Central	4			7	3		99	148	27	6
Freeport Div.				1						
Galena Div. N. W.				5	4					
Wis. Div., N. W.	1				1	3				
Wabash				1	1		10	79	42	
C. & E. I.	4					54	106	4	2	
C., M. & St. P.	2	1			1		17	3		
Wis. Cent.										
C. Gr. Western	1			2	14		99	19	74	1
A., T. & S. Fe.	5	4		6	21		41	79	54	1
Through & Spec	4				1	66	158	15	4	
Total each grade	28	11		96	139		381	835	292	31
Total W. wheat										1,813

SPRING WHEAT.

Railroads.	Northern	2			3			4			No Grade.
		White.	2	3	2	3	2	3	2	3	
C., B. & Q.		6	126	5				70			
C., R. I. & P.		13	2	2				8			
C. & A.			2						3		
Illinois Central				2							
Freeport Div.					2						
Galena Div. N. W.					13	1	2			1	
Wis. Div., N. W.					4	15					
Wabash											
C. & E. I.											
C., M. & St. P.		34	249	16	3						
Wis. Cent.											
C. Gr. Western		1	4	4							
A., T. & S. Fe.		5	6	21				2			
Through & Spec		126	27	10				82			
Total each grade		171	448	44	5			162		4	
Total sp. wheat											834

CORN.

Railroad.	Yellow.			White.			2			3			4			No Grade.
	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	
C., B. & Q.	443	97	50	22	1,536	287	162	16								
C., R. I. & P.	248	146	45	10	567	435	195	11								
C. & A.	166	143	35	23	138	107	61	8								
Illinois Cent.	1,032	190	330	103	483	82	337	21								
Freeport Div.	83	66	15	9	104	81	46	1								
Gal. Div. N. W.	366	189	22	15	548	390	270	27								
Wis. Div. N. W.	1	2														
Wabash	148	273	101	60	21	168	159	56								
C. & E. I.	122	33	23	11	51	50	37	6								
C., M. & St. P.	35	63	15	9	212	762	188	7								
Wis. Central																
C. Gr. Western	31	14	8		231	49	31	2								
A., T. & S. Fe.	20	86	15	34	16	119	88									



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ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., AUGUST 15, 1893.

SEELEY, SON & CO., Fremont, Neb., have been doing their full share of work in elevator building this year.

The first spring wheat of this crop to arrive in Chicago reached this city August 14. It came from Mendota, Ill., graded No 2, and sold for 63 cents.

If you need a separator for oats, screenings and cockle, note the advertisement in this issue of the Prinz & Ran Mfg. Co., Milwaukee, Wis. They believe they have a machine which will fill every requirement.

Read the advertisement of Willford & Northway Mfg. Co., Minneapolis, Minn., and if you are interested in the feed mill question, as every elevator man should be, for feed-grinding is a source of profit, send for particulars of the Willford Light Running Three Roller Mill.

SOME of Chicago's prophets think that this city will be a great place to buy grain this year. They base the prophecy on the light accumulations at various points, only Chicago, Minneapolis and New York showing very large supplies. Millers have been buying in Chicago quite largely of late.

HUNTER, CRANSON & HAMMOND, Silver Creek, N. Y., will have a full line of monitor grain separators on exhibition at the Ohio State Fair, to be held at Columbus, commencing August 27. They invite grain men, millers and all others interested in grain cleaning to give their machines a critical investigation.

JENNINGS' New England Telegraph Cipher for the grain, flour and feed trade, which has been issued recently, is the most complete cipher for doing business in New England and with the West that has ever been issued. It is also a directory of the New England trade and contains the names and addresses of 1,400 dealers together with a cipher word for each. The book is pocket size, well bound in leather, and its 207 pages have many lines with cipher words for

additions. It contains a number of unique and valuable features and will save money, prevent mistakes and keep business private. An order can be sent with full shipping directions with only three or four words.

We have heard nothing lately of Gov. Lewelling's scheme to open up trade with Europe by way of Galveston by building a railroad from Canada to the gulf. A good deal of stuff now goes to the gulf from Kansas and the surrounding territory, and it only fair to assume that more will go in the future than has in the past. But the Governor's idea of simply sending stuff that way to boycott the East will hardly prove successful. Trade finds its own routes and keeps them until better, cheaper or more expeditious ones are made or found. Trade is singularly devoid of sentiment of any kind.

FEEDING wheat to hogs is no new thing, but there appears to be a great deal of it being done just now. And a great deal more doubtless would be done except for the fact that it is a slow way to realize. Farmers who can afford to wait for returns from their wheat via pork are, as a rule, simply holding their wheat. Those who must realize the cash are selling the wheat for what it will bring. The value of wheat for feeding purposes is not altogether a settled question. Some claim that wheat is the richer food; but a number of farmers who have tried it say not, and that corn is pre-eminently the best food. When wheat is fed some say the best results are obtained by grinding and mixing with equal quantities of corn. But feeding wheat to hogs on a short crop is an anomaly.

A NUMBER of hay dealers met at Sioux City, Ia., August 9 and organized the Interstate Hay Dealers' Association. Officers were elected and permanent organization effected. Rail and water lines have promised favorable rates on hay shipped abroad and the association proposes to take steps to facilitate and promote the exportation of hay direct to Europe. The hay dealers of the West have been very slow to organize, but now that those in the neighborhood of Sioux City have taken the initiative others may follow. New York has an active organization of hay and straw dealers, and it is doing effective work in the interests of its members. The dealers of other states could organize an association for the advancement of their interests if they so desired, but they do not want to, as they have everything they want. They are perfectly satisfied and have no kicks coming.

THE PORK AND LARD COLLAPSE.

August 1 witnessed one of those dramatic scenes which are occasionally enacted on the Chicago Board of Trade. The big corner in pork and lard collapsed utterly and carried down the chief manipulators, Cudahy and Wright, crippled Fairbank and caused the failure of seven well-known houses of the Board. The particulars of the crash are doubtless known to our readers and the moral is perfectly obvious. There have been few deals so disastrous as this one in the provision pit. Pork closed Monday night, July 31, at \$19.25. The next morning it started down hill and rolled clear to the bottom, \$10.50. Lard fell from \$9.75 to \$5.90 a tierce. The break-up was perfect. Nothing was saved.

Two speculators, flushed with previous successes, commenced the deal months ago. It might have resulted differently in other times, but in times of business depression the bottom of the largest purse is reached after a while. How much was lost in the deal is not known; but the amount was probably between four and five million dollars, for there were losses and sacrifices of securities as well. It is said that Cudahy and Fairbank scheduled over \$3,000,000

in the attempt to raise \$400,000 from the Chicago banks; but the banks were not lending money on July 31 to carry deals, or indeed for any purpose except to save patrons from bankruptcy. So the pork and lard clique went down. The collapse was beneficial all around, except to the clique. The provision trade started up at once on the same basis as other staples, and banks no longer refused to accept pork as collateral. Cudahy has been a phenomenally successful speculator, and the failure of his attempted wheat corner last May and this last collapse are his two first reverses. The desire to run the whole show catches them all sooner or later.

MOVING THE GRAIN.

In no department of commercial activity has the money famine been more keenly felt than in the grain trade. With New York exchange selling at from \$5 to \$30 discount, the wonder is that shipments have not utterly ceased. The money to move the crops is not forthcoming from the usual sources. The East can spare no currency, and the West has never had enough to handle her own crops. Chicago is perhaps better off for currency just now than any other large city, but the bankers confess their inability to supply the vast sums needed. All sorts of expedients have been advocated to get around the currency famine, but nothing feasible has been suggested. The money is locked up not only in the banking centers, but in the small banks all through the country. The "hoarding" and "old stockings" that are complained of are largely myths. Every bank is carrying more reserve than it has for twenty years. The local banks at the primary markets are no exception. There is where the money has gone to. When the banks regain their confidence the money will come forth in short order.

OUR WATER ROUTES PROSPERING.

The Mississippi River transportation lines have done a fair business in handling grain this season, but have experienced no boom in comparison with those doing business on the Erie Canal and the St. Lawrence River and the canals connected therewith.

The Erie Canal, despite shallow water and short locks, had a greater increase in business from the opening of navigation to the 1st of August over last year than in any preceding year. During that time it carried twice as much as during the same period last year. The railroads are too busy with passenger traffic to bother with grain, so boatmen are getting all they can carry at profitable rates. So great a business under such adverse circumstances serves to point the wonderful carrying capacity the canal would have now had it been improved seven years ago as it should have been.

Still another water route is doing a wonderful business. It is the St. Lawrence route, which is encumbered with shallow canals, rapids and insufficient incoming tonnage to balance the outgoing. Some difficulty has been experienced in securing vessel room and so much grain has been delayed that the shipments by this route are much smaller than they would be were it improved to meet the demands of the grain shipping trade. The grain exports from Montreal have been very large, and it is expected that the city's export grain trade for 1893 will exceed any preceding year. The exports from the opening of navigation to August 1, during the past four years, have been much less. In 1890 only 5,357,669 bushels; 1891, 4,251,633; 1892, 933,847, and for 1893, 12,047,008 bushels. The facilities for handling the traffic are taxed to their utmost, so it is probable that improvements and additions will be made in hope of fostering the trade. The route is the most direct to England from Western lake ports, and if improved would get

the bulk of the grain shipped from these ports each year.

There are a number of waterways in this country that it will not pay to improve, but this number does not include the two connecting lakes with the ocean, which, if properly improved and carefully managed, would bring about a material reduction in the cost of transporting grain to Europe. This would enable the grain exporters of this continent to compete more easily with those of other exporting countries, and would prove a very profitable investment.

AN ECHO OF THE MAY DEAL.

On August 8 the United States Circuit Court at St. Paul appointed George Spence of Duluth, receiver to take charge of the Lake Superior Elevator Company and the Union Improvement and Elevator Company, both of Duluth. This is another chapter in the history of the May deal in wheat which led to the bankruptcy of the Northern Pacific Elevator Company, and the subsequent scandal brought out by the sensational story of the duping of New York and New England banks by duplicating the warehouse receipts of the Northern Pacific Company.

The failure of the last company and the appointment of a receiver for the other two are directly chargeable to the May deal in Chicago. To meet the calls for margins at Chicago, wheat was sold at Minneapolis upon which certificates had already been issued in country houses and hypothecated. From this arose the sensational story that Eastern banks had been swindled out of a million and a half dollars. All the paper held by the banks was endorsed by the Lake Superior Elevator Company or the Union Improvement Elevator Company, the collateral being certificates for about a million bushels. The banks did not appear to manifest any particular uneasiness over the matter, as the two elevator companies expressed a determination to redeem all the paper. It is to be hoped that at this critical time when the co-operation of capital is needed, the effect of the disclosures will not be to make bankers look upon warehouse receipts with eyes askance. The certificates will be made good and the bankers will not lose a cent by the transaction. The certificates were not duplicated, and it was not the intention of the elevator companies to swindle anyone.

THE MINNESOTA STATE ELEVATOR SCHEME.

The state socialists of Minnesota will not be allowed to put their project of a state elevator in operation without a vigorous fight. The members of the railroad and warehouse commission have been cited to appear on August 16 and show cause why an injunction should not be issued restraining them from entering into any contract for the construction of the proposed state elevator at Duluth. On August 8, Henry Rippe, an elevator owner at Fairmont, Martin county, Minn., applied for an immediate injunction, which Judge Kelly did not grant, but cited the commissioners to appear, as above stated, to show cause why a perpetual injunction should not be issued.

The complaint filed by Mr. Rippe's attorneys is interesting. After setting forth the nature and provisions of the act creating the railroad and warehouse commission, the complaint proceeds to state that in the course of his business he has been obliged to ship grain for storage in the terminal elevators and has been compelled to pay, against his will, the charges fixed by the commissioners, which have, in the aggregate, amounted to a large sum, and that this is now a part of the inspection fund which the act of April 18, 1893, appropriates for the continuation of the state elevator. This is to show his right of action. Then coming to one of the essential

points in the case the plaintiff urges that by the imposition of these excessive charges a "burdensome, excessive and unequal task is imposed" upon shippers of grain to the terminal elevators, and alleges that the state has no right and that it is beyond its constitutional power to impose upon and collect from citizens of the state who are engaged in a lawful and necessary business such as the grain business, in the form of fees in excess of the amount absolutely necessary for the regulation of such business, and especially to derive a revenue therefrom and appropriate it for a public improvement and to carry on a business in competition with the citizens of the state such as is authorized by the state elevator law.

The complaint charges that the act itself is in violation of Section 1, Article IX, of the state constitution, as well as of other sections, in that the charges constitute an unequal tax and are in restraint of a lawful business; that it is entirely foreign to the intent of the act establishing the commission to appropriate any accumulation from excessive charges for the support of a state elevator. It is also alleged that seven-tenths of the grain crop of this state is shipped and marketed at the terminal points and has to go into the elevators and pay the fixed charges, and that, therefore, large numbers of citizens are suffering the same grievances with himself.

The complaint then goes on to say that pursuant to the act of April 18 the commission purchased, at a cost of \$11,000, paid out of the inspection fund, a site for the elevator; that the commission has prepared plans for an elevator with a capacity of 1,500,000 bushels, to be constructed on the purchased site, and having received bids intends to execute a contract with the lowest bidder for the construction of the elevator, at a cost of \$198,700. As there is but \$51,000 now in the warehouse fund subject to the order of the commission, and as no money can accrue to the fund by the terms of the act until after the construction of the elevator, the plaintiff urges that it will be a waste of money now at the disposal of the commission to execute the contract, and that the state will then be more than \$150,000 in debt for the elevator, contrary to the provisions of the constitution.

The legal battle will be interesting and will in the end decide the right of the state to engage in such enterprises.

MICHIGAN DEALERS ORGANIZE.

Our readers will be surprised to hear that grain dealers of Kent and nearby counties in Michigan have cast off the antipathy for organization which seems to have had possession of the members of the grain trade for some time past, and have actually organized a grain dealers' association.

If grain dealers of Michigan are willing to profit by the experience of others they should contemplate the results secured by the millers' organization of their state. It would be folly for any dealer of Michigan to maintain that the trade of the state is not encumbered by many outrageous abuses, or that the grain dealers are not competent to accomplish as much as the millers have by organization.

If a few progressive, pushing men will take the lead, others will follow. Every one of the leading grain producing states should have an association with a membership of at least 150. Some should have a membership of 500. Such formidable organizations would not only inspire respect for the trade they represent, but would also supplant the disrespect for the rights of shippers shown by carriers and buyers with a respect that would be profitable to members.

The meeting which was held at Grand Rapids was enjoyed by every one in attendance. It was the sense of the meeting that it would be advisable to put in grain cleaners to clean wheat received from farmers before weighing, the screenings to be returned to the farmer. This

has become the practice in a great many sections of the country during the past few years, and it is still growing. Dishonest and shiftless farmers have continued to systematically increase the percentage of dirt in wheat marketed until wheat buyers have been compelled to clean the grain before weighing to protect themselves.

Michigan dealers can do much to advance their trade interests by working together, that, cannot be accomplished in any other way.

THE PRICE OF WHEAT.

It needs no comment. Any one who has observed quotations knows what kind of a market Chicago has had the past month. When wheat goes down ten cents one week and up ten cents the next week, it would seem that distinctions between bulls and bears had vanished. Wheat got down to 53½ cents the last day of July. The attitude of the local banks had much to do with this, coupled with the disastrous ending of the corner in provisions. The market "recovered," if a sick man who falls from one fit into another fit can be said to recover. Everybody was timid, speculation stagnant and money hard to get. But it is hardly possible that we shall see 53 cent wheat again. The signs of returning confidence are everywhere too apparent. When the money famine ceases we shall again have a normal market. It is only once in a generation that one sees wheat sell at 53 cents in Chicago, and it is well to remember the day for reference—the last day of July, 1893. For, after all, it was only a nominal quotation like the \$2.00 wheat during Hutchinson's corner. Both quotations would have been impossible had there been an actual market.

REGULATING COUNTRY ELEVATORS IN MINNESOTA.

Minnesota's new law, which was intended to compel all country elevators on railroad right of way to take out a license and to do even more than a public warehouse business, went into effect the first of this month, and some of the elevator men have taken out the required license. Others are holding off and there has been some talk of fighting the unjust provisions of the law.

The law provides that all warehouses and elevators, located on the right of way of any railroad, in which grain is stored and handled are declared to be public warehouses and under the supervision of the railroad and warehouse commission. The lawmakers seem to have forgotten that the railroad right of way was granted for railroad purposes and that when not used for such a purpose the state has not the right to regulate the business of those who use it. As long as a right of way is used for railroad purposes the state can regulate its use or stop its use for another purpose, but the state has made no concessions to the elevator owner that place him under obligations to it. His business is not of semi-public character unless he conducts a public warehouse business. Elevator men who rent space for their houses on railroad right of way for conducting a private business should not be interfered with by the state, unless it is to stop them in the use of land that was condemned for another purpose.

If the elevator men having houses on railroad right of way in Minnesota submit to the unjust regulation attempted they will court rules and regulations more severe and unjust, not alone for themselves, but for elevator men of other states who are similarly located.

No attempt will be made to regulate the business of elevator men who have rented land for their houses from others than a railroad company. The excuse for regulation is too flimsy to hold against any vigorous and persistent opposition.

EDITORIAL MENTION

When visiting the World's Fair call at Room 5, 184 Dearborn street, and get free a guide book to the exposition.

READERS can secure a copy of our souvenir guide to the World's Columbian Exposition and Chicago by sending a two-cent stamp for postage to the AMERICAN ELEVATOR AND GRAIN TRADE, Room 5, 184 Dearborn street, Chicago.

The *Hay Trade Journal*, published weekly and devoted exclusively to the interests of the hay trade, costs \$2 per year. The AMERICAN ELEVATOR AND GRAIN TRADE, which is devoted to the interests of the grain trade, costs \$1 per year. By taking both journals together you can get them for \$2 per year.

PORTRAITS of longheaded men are often found on the reading matter pages of this journal, but seldom on the advertising pages. As a portrait of such a man appears in C. L. Bailey & Co.'s advertisement in this issue, we feel it our duty to call attention to it, so that readers will make sure to see what he looks like and what he does.

LAST year Mexico removed the duties on foreign corn and cornmeal on account of the short crops. This was highly advantageous to the United States, and for the time being Mexico was an excellent customer for our corn. However, as the Mexican crops are all right this year, the duties are restored to-day, August 15, to the old basis.

OCEAN steamship companies, like rail carriers, are guided in making their rates on freight by what they think the traffic will stand, and, like a person that lived long ago, they often kill the goose that laid the golden egg. No sooner did they learn of the strong foreign demand for our hay than they advanced the rate to a figure which serves to discourage the American export trade, and to foster the export trade of European countries having surplus to spare.

THE American Seed Trade Association, to which the seed trade of the country is greatly indebted for having adopted and put in force the cental as the standard measure for seed, is holding its eleventh annual meeting in Chicago. A memorial to the Secretary of Agriculture was adopted, in which he was requested to conform to the law regarding the dissemination of seeds, by enforcing the free distribution of new and untried seeds, as contemplated by the law.

THE meeting of the Hay and Straw Dealers' Association of New York State at Saratoga Springs was well attended, as most of the meetings of the association have been. It now has a membership of 127, and is growing, which shows that the members of the hay and straw trade of New York know a good thing when they see it, and when they see it they get it. The members of the trade in other parts of the country, like the grain dealers, are slow to organize.

COL. C. J. MURPHY, known everywhere as "Cornmeal Murphy," sailed for Europe on August 9. He will visit Denmark, Norway, Sweden, Holland and Belgium in the interest of the wider use of corn. He expects to draw particular attention to the value of corn in the brewing of beer. Col. Murphy expects a great demand this year for American corn. However,

the relatively low price of wheat and the relatively high price of corn may interfere with this expectation.

OUT of 40,000 fires tabulated in the New York *Chronicle* showing the principal causes of fires, classes of property specified i. e., of fires originating on the premises, elevators and grain stores stand nineteenth on the list, number 257. The classification of the *Chronicle* may be defective, however, in classifying "grain stores" and elevators together. It is possible that "grain stores" may include the farmer's granary, which is notoriously a favorite mark for lightning, and the frequent victim of the tramp's pipe.

THE Chicago Board of Underwriters, it is announced, will advance the rates on grain cleaning houses from $\frac{1}{2}$ to 1 per cent., according to the extent of the business carried on. It is naively stated that "plants will be discriminated against which are surrounded by railway tracks." We suppose that grain cleaning elevators located in the parks and on the boulevards will be insured at lower rates. And perhaps the cheaper insurance will induce some of the elevator men to locate their houses away from the railway tracks.

ACCORDING to the last report of the Agricultural Department our wheat crop will amount to about 385,000,000 bushels, so that, allowing the present visible supply for seed, and 306,000,000 bushels for home consumption, we have less than 79,000,000 bushels to spare for export. Last year the government estimate was at least 60,000,000 bushels too small. If it is as much too small this year we will have 139,000,000 bushels to spare, providing we will retain no wheat of this crop in our visible supply bin after next June.

IN several Eastern cities an effort is being made by hay receivers to have the railroad companies erect terminal warehouses for storing baled hay. Several roads have already erected houses and thereby increased the earnings of their rolling stock as well as secured an income from storing hay. We wish to suggest that the grain carriers could extend their terminal warehouse system to grain and seeds and thereby keep their cars moving more of the time and facilitate the prompt delivery of all kinds of freight about which they have expressed so much anxiety.

IF the Grain Dealers' Association of Northwestern Iowa had many imitators in the grain trade of other districts the business would not be enumbered with so many abuses and burdens. The dealers of that district work together for the advancement of common interests, and whenever they tire of petitioning, protesting and kicking they join arms and go to the courts. The encouraging part about their persistence is that they generally succeed in making carriers pay dearly for having ignored their rights. Other shippers could easily accomplish as much if they would work together.

AFTER several favorable decisions the heirs of Jesse Hoyt and Perry Smith have met with reversal in their suit against the C. M. & St. P. Ry. It will be remembered that the railroad company in order to secure the erection of a grain elevator on a plat near its tracks in Chicago, agreed in 1880 to deliver annually for a period of ten years 5,000,000 bushels of grain to the "Fulton" elevator and the new house to be erected, both of which were to be operated by Hoyt & Smith. In default of delivery of such amount the railroad company agreed to pay one cent per bushel for any deficiency. The plaintiffs sued for the amount due owing to deficiencies due for several years, and in each case secured judgment in the trial court. The Appell-

ate Court in reversing the first decision granted, held that the failure of compliance with the contract for any stipulated time within the ten years was not sufficient. An appeal will undoubtedly be taken from this decision.

THE Walla Walla *Union* says: "Charles Scott, who has a farm on Dry Creek, informs a representative of the *Union* that he has 900 acres in winter wheat which will yield full 40 bushels to the acre. A sample was shown with heads a foot in length." We don't question the 40-bushel yield, for that is not phenomenal, but our faith is a little weak in the "heads a foot in length." With heads a foot long the yield ought to be more than 40 bushels per acre. We would like to see one of those heads.

SINCE shippers succeeded in obtaining so many judgments against carriers for damages due to delay of live stock in transit, it is reasonable to think they would succeed equally as well in suing for damages due to delay of grain in transit. The amount lost by shippers and receivers in interest alone is an important item. It is the price paid by the grain trade for tolerating the poor service of carriers. Its forced collection will be continued until the members of the trade are no longer content to accept of delays as unavoidable. Carriers make money out of the delays of shippers and receivers, and if they were sharp they would turn the tables on the carriers and likewise charge for delay.

SOME queer things keep turning up during the present depression. Mr. Lathrop, manager of the Santa Fe Elevator at Atchison, Kan., says that on July 29 he bought No. 2 hard wheat at Wellington, Kan., at 35 cents a bushel. At the same time mixed No. 2 corn was selling at 44 cents per bushel on the streets, and farmers were buying it to feed to their hogs. We have heard of many instances in the West, especially in Kansas, when wheat has sold below the price of corn. This is inverting the experience of recent years when corn was so cheap that it was burned as economical fuel on a basis of 15 cents a bushel and less. How the whirligig of time dazes us when it gets to whirling in good earnest!

FARMERS in the vicinity of Cropsey and Anchor, Ill., recently adopted a plan for recovering stored wheat that may get them into trouble. The Middle Division Elevator Company, having a number of houses in Illinois, failed recently, and the following Sunday the farmers who had grain stored in the houses at the places named seized every bushel and hauled it away. The following day the sheriff took possession of the houses, but found the bins empty. It is not probable that each farmer got exactly the amount due him—some may have taken more than was due them. If discovered and arrested for theft as they should be they would feel greatly wronged. Under the present circumstances it is impossible to tell to what farmers the company owes grain.

WE are indebted to the daily press for the information that Senator Washburn has arrived in Washington and that he will not push his anti-option bill during the extra session. We are indebted to the same source for the information that "Farmer" Hatch is on hand with an anti-option bill in his pocket which he will fire into the ring as early as the all-absorbing silver question will permit. The friends of the measure state that many of the new senators are pledged to vote for such a measure and that it will be pushed through the House and got into the Senate before the snow flies. But the advocates of the anti-option bill must remember that they will need a majority of two-thirds, for any such legislation will encounter the presidential veto. It is well understood that Mr. Cleveland has no sympathy with legislation of that sort.

Trade Notes.

The firm of Osgood & Co. of Binghamton, N. Y., manufacturers of scales, has been burned out.

The Bodifield Belting, Cleveland, O., has been placed in the hands of a receiver. Liabilities \$37,000; assets \$61,000.

The statement of the Racine, Wis., Hardware Manufacturing Company, which failed recently, gives liabilities \$381,000 and assets of \$499,133.

A. G. Bodwell has been appointed receiver of the Standard Manufacturing Company, manufacturers of bale ties and hay presses at Kansas City, Mo.

T. D. Randall, general commission merchant in grain, hay and flour at 219 South Water street, Chicago, Ill., reports at present a large business in export hay.

An advertisement is an evidence of solvency. It is remarkable how soon the public forgets the man who drops his advertisement. It does not pause to ask whether he has died, failed or gone out of business. It simply forgets him.

The Famous Manufacturing Company have an exhibition at the World's Fair one of their Self-Tying Champion Hay Presses. This machine is destined to revolutionize the baling of hay, as much as the self-binder did the harvesting of small grains.

S. Howes of Silver Creek, N. Y., writes us: "I have been requested to forward eleven of my largest size Eureka Warehouse and Elevator Separators to a port on the Black Sea. These separators will have a combined capacity of 18,000 bushels per hour and are intended to be placed in the largest elevator in Russia, which is now being completed. This order was placed after the managing director had examined the various machines on the market, both of English, American and Continental manufacture, and he concluded that the most reliable machine that he could use was the Eureka Separator." This is the second repeat order received by Mr. Howes for his large separators from this company and shows in what estimation his machines are held abroad.

A prominent and successful manufacturer was recently asked why he did all of his advertising through the leading trade journals and never sent circulars or put up posters, and replied: "Men who do not read their trade papers and keep posted in their business are usually poor customers. If I sell them a good lot of machinery they do not know how to use it and report it a failure, or we have to run after them, lose time and money to get them a-going and make the sale stick. But those who read and are posted know how and succeed. Such men would not read circulars if I were to mail circulars to them. They see my ad. regularly in the trade paper and know that I have an established business, and when they want anything in my line write me, and don't whine about price or what time they can get from others, but buy, try, and have no trouble, and pay the bill. Give me such a class of customers as I get by such judicious advertising all the time."—*Industrial Journal*.

IMPORTS OF HAY EXCEED EXPORTS.

It seems ridiculous that we should import hay, yet during the crop year ending with June our imports exceeded our exports by 51,153 tons. During June hay aggregating 13,664 tons was imported, against 9,064 tons imported during June, 1892, and during the twelve months ending with June 30, 104,257 tons, valued at \$964,755, were imported as compared with 79,715 tons, valued at \$715,151, imported during the corresponding months of 1892.

The exports of foreign hay amounted to 12 tons, valued at \$92, during the twelve months ending with June 30, as compared with 151 tons, valued at \$1,387, exported during the corresponding term of months of the year preceding.

The exports of domestic hay were 2,726 tons, valued at \$41,714, during the month of June, against 2,708 tons, valued at \$44,072, exported during June of the year preceding. For the twelve months ending June

30 the exports of domestic hay were 33,084 tons, valued at \$519,640, as compared with 35,201 tons, valued at \$582,838, exported during the preceding crop year.

GRAIN CLEANING MACHINERY FOR RUSSIA.

It has been decided by the Russian government that all grain must be cleaned before being exported from that empire. This measure has forced itself upon the government on account of the low grading of Russian wheat in foreign markets, grading brought about unfairly, so the Russians think, by speculators to increase their profits at the expense of the producing country. As Russia does not manufacture machinery to meet this new requirement, it is expected that foreign manufacturers will be purchased—indeed, must be—in greatly enlarged quantities. It is proposed that all such machinery will be admitted duty free. In addition, the Russian millers, aided by the government, are going to make great efforts to have their grain exported in the form of flour as much as possible. This will still further increase the demand for foreign machinery. To this end a machinery exhibit will be held at St. Petersburg in next January, and, no doubt, our manufacturers will be represented. A special section will be set apart for winnowers, trieurs and apparatus for drying and conditioning grain. Agricultural machinery is already popular in Russia, and this new movement must lead to a general increase in agricultural, also cleaning and mill machinery, if our manufacturers do their duty in the premises.—*Farm Implement News*.

HANDLING THE RICE CROP.

The New Orleans *Picayune* says: "The time is now at hand when the planting of the new rice crop suggests the advisability of considering methods of improving the handling and sale of the crop. The experiences of the past year have demonstrated the necessity of inaugurating more economical methods of handling rice if the industry is to be maintained upon a prosperous and progressive basis. Whatever reforms are to be inaugurated must be determined upon well in advance of the advent of the crop upon the market; hence it is high time to begin the consideration of the matter."

"The most important recommendation which has yet been made was contained in the last annual report of the rice committee of the Board of Trade, which suggested the practicability of shipping rice to market in bulk. To bring about the change it would be necessary to establish standard grades and to erect elevators both in the country at convenient concentrating points, and here, in New Orleans, where the great bulk of the crop is marketed and where large amounts of it must necessarily be stored while awaiting sale."

"The system of handling rice in bulk would greatly facilitate its sale, as it would do away with the existing system of sampling each small lot and the greater evil of shipping several lots in the same car. It would also greatly reduce the cost of drayage and the loss in weight from leaky sacks, besides facilitating storage and cheapening warehouse charges."

"The bulk system would enable the railroads to handle the crop more expeditiously, and, therefore, more economically for the planters, and it would also have a tendency to stimulate speculation through the establishment of standard grades."

"According to all accounts, the producing sections have considered the bulk system favorably, and it is even reported that one or more elevators have been decided on, to be erected during the coming summer at prominent concentrated points within the rice belt. If the local rice interests expect to inaugurate the change and reap the first benefits to flow from it, they must lose no time in taking the initial steps toward building a rice elevator here."

"The railroads which handle the bulk of the rice crop have doubtless the largest interest in procuring these elevators, but the merchants and millers and others engaged in handling rice here have also a vital interest at stake, and are, therefore, bound not only to cooperate, but being the most numerous class, to inaugurate the movement."

"That the proposed change presents difficulties

there can be no doubt, but that fact only accentuates the necessity of beginning the preparations well in advance of the marketing of the next crop, so that all obstacles may be fully met in good season and overcome before the bulk of the harvest begins to move."

DOTS AND DASHES.

The bark Friedling sailed from New York on July 19, with 15,000 bales of hay on board.

New oats will meet a good demand. Stocks East are small, and new oats are fine and heavy.

The first receipts of new red winter wheat received at New York from New Jersey this season weighted 61 pounds to the bushel.

One hundred tons of hay was burned on a farm near Warsaw, Ind., recently, the fire having caught from a locomotive spark.

With hay at \$40 per ton in Great Britain the outlook for John Bull's fat slices of juicy roast beef during the summer is dismal indeed. But the "mug a' hale" is obtainable at old prices.—*Boston Fruit and Produce Journal*

The management of the Santa Fe road have announced that they would furnish free transportation for seed wheat sent by farmers from any part of the state of Kansas to those needing the same in the drouth stricken district in Western Kansas.

Farmers in the vicinity of Columbus, Ind., who have one, and two years' crops of wheat on hand have begun feeding it to the hogs, fattening them for the market. The price of wheat is only 45 cents per bushel, which is lower there than ever before.

The hay dealers of the section including Iowa, Nebraska and South Dakota held a meeting at Sioux City August 9, to organize an association with the object of arranging for exporting hay in large quantities direct to Europe and the West Indies. Many thousands of tons are expected to go abroad this winter from these states.

Flaxseed amounting to 97,599 bushels, valued at \$113,257, was exported during the month of June, against 10,085 bushels, valued at \$12,956, exported in June of the year preceding; and during the twelve months ending June 30, 1,837,370 bushels, valued at \$2,195,374, was exported, as compared with 3,613,187 bushels, valued at \$3,915,547, exported during the corresponding term of months of the year preceding.

The imports of barley malt for the month ending June 30 amounted to 322 bushels, against 65 bushels imported during June, 1892; and during the twelve months ending June 30, 3,559 bushels, valued at \$4,411, were imported as compared with 5,165 bushels, valued at \$6,148, imported during the corresponding months of 1892. No barley malt was exported in June or in June, 1892. There was none exported during the twelve months ending June 30, but 1,191 bushels, valued at \$830, were exported during the twelve months ending June 30, 1892.

The shipping business is materially hampered by the difficulty in selling exchange. Shippers have had good export orders for wheat for several days, but as the bankers will only take exchange in limited amounts they have been unable to fill them. The bankers are anxious to have stocks of wheat moved out, and the shippers have informed them that unless they take their exchange more freely they cannot ship. Arrangements are being made whereby the exchange will be taken and the shipments increased. This will help to relieve the financial depression.

We repeat last year's caution as follows: In shipping grain, dealers cannot be too cautious concerning the condition of cars in which grain is to be loaded. Car doors and all openings should be scrutinized, and the car, in all respects, made to hold what is put into it. Again, the loaded car should not be left unlocked over night. Many an unsuspected man will help himself. White man is very uncertain at shipping as well as at receiving points. Wheat thieves are very numerous and very handy. Take as good care of your wheat as you do of your money.—*Toledo Market Report*.

ELEVATOR & **GRAIN NEWS**

A rice mill has been built at Sunset, La.

A brewery is to be built at Shenandoah, Pa.

A grain elevator is to be built at Marquette, Neb.

J. T. Gordon will erect an elevator at Pilot Mound, Man.

Finnell Bros. of Gridley, Ill., have sold their elevator.

The grain elevator at Freeland, Mich., will soon be opened.

J. H. Gregg, grain dealer at St. Joseph, Mo., has sold out.

Taylor & Evans will build a rice mill at Lake Arthur, La.

The new farmers' elevator at Wellington, Kan., has been finished.

Harris Bros. & Co., grain dealers at Orleans, Neb., have sold out.

The elevators at Ravenna, Neb., have put in the Dickey Cleaners.

A. F. Bernshien at Brandon, Wis., has adopted the Dickey Overblast.

W. R. Crackel is building a grain warehouse at Lawrenceville, Ill.

Miller & Smith have succeeded the firm of F. P. Miller at Pratt, Kan.

Hively Bros., warehousemen of Tipton, Cal., have dissolved partnership.

A grain elevator is being built at Pataka City, Wash., by John Hana.

W. F. Tuttle, hay dealer of Rockwell City, Ia., has removed to Sioux City.

Dixon's new elevator at Hartsburg, Ill., has been equipped with machinery.

Stroud & McKabney, grain dealers of Kane, Ill., have dissolved partnership.

Gravel & Phaneuf, hay dealers at Montreal, Que., have dissolved partnership.

The foundation of the farmers' elevator at Winona, Minn., has been completed.

Henry Heile & Sons are building a grain and hay warehouse at Cincinnati, O.

The National Rice Mill Company is building another mill at New Orleans, La.

J. R. Turner is grinding corn, oats and meal at his elevator in Atlantic City, N. J.

The farmers about Baldur, Man., have decided to build an elevator at the station.

The L. T. Soule Elevator Company of Minneapolis, Minn., have sold their elevators.

Mr. Davis has started the feed grinding machinery in his elevator at Rossville, Kan.

The firm of Thom & Bourg, grain dealers of Aspen, Colo., has dissolved partnership.

A rice elevator is being built at Opelousas, La., by the New Orleans Rice Company.

The firm of Smith & Kane, dealers in hay and grain at Paterson, N. J., has dissolved.

Hiestand & Warner are about to reopen their wheat warehouse at Palouse City, Wash.

An elevator is being built at Bellingham, Minn., in place of the one burned last spring.

Isaac Tucker is about to go into the elevator business at Owasa, Alden and Eldora, Ia.

A 50,000-bushel warehouse is being built adjoining the mill building at Ritzville, Wash.

Harris Bros. & Co., grain merchants at Orleans, Neb., have retired from the business.

Lussier & Rogers, dealers in grain and hay at Montreal, Que., have dissolved partnership.

The failure of Lyon & Hulbert, grain commission firm of Chicago, Ill., occurred recently.

Simons & Co., grain dealers at Buffalo, N. Y., have been succeeded by Simons & McMullen.

Elmendorf, Watte & Co., commission grain dealers at Chicago, have discontinued business.

Logan, Cowl & Co., grain commission firm of New York, N. Y., have dissolved partnership.

The Foster & Williams Manufacturing Company of Racine Jet., Wis., have just put two of their latest

improved flax brakes in the American Flax Fiber Company's mill at Austin, Minn.

Everett & Butterfield, grain, lumber and implement dealers at Coleridge, Neb., have dissolved.

Seaton & Cabeen of Seaton, Ill., are lowering their old elevator and making of it a warehouse.

The elevator and feed mill of A. F. Walther at Chicago, Ill., was recently damaged by fire.

F. A. H. Greulich has just put in his third A. P. Dickey Overblast, this time at Van Horn, Ia.

Frank Guldinger and George Stevenson have bought the "O'Neill Elevator" at St. Charles, Minn.

A. S. Bright, grain dealer at Cumberland, Ia., has absconded, leaving his creditors in the lurch.

W. J. Riley & Co., grain dealers at Indianapolis, Ind., have been succeeded by Wm. L. Higgins.

O. P. Carter & Co., commission grain dealers at Minneapolis, Minn., have dissolved partnership.

R. K. O'Neil of St. Louis has secured the contract for building the state elevator at Duluth, Minn.

The Ninety-Six Oil Mill Company has been incorporated at Ninety-Six, S. C., with \$20,000 capital.

The Dotterweich Brewing Company has been incorporated at Olean, N. Y., with \$125,000 capital.

Phillips & Richardson of Portage la Prairie, are building a large grain elevator at Lumsden, Man.

Will Garnett has finished a large new grain warehouse at La Belle, Mo., making four in that place.

The Kentucky Pride Distilling Company has been incorporated at Chicago, Ill., with \$50,000 capital.

Wheeler Bros. have put in the A. P. Dickey Manufacturing Company's flax cleaner at Germania, Ia.

William Bender at Ida Grove, Ia., and Walter Bros. at Charter Oak, have adopted the Dickey Overblast.

Clarkson Cowl has retired from the firm of F. G. Logan & Co., commission grain dealers at Chicago.

Martin & Co., commission grain dealers at Denver, Colo., have failed. Assets \$48,510; liabilities \$44,270.

O. T. Rockwell, proprietor of general store and dealer in grain at Manley, Neb., has sold his business.

Theo. Nathan has retired as manager from the grain firm of Nathan Wilden Co. at Charleston, S. C.

A. Plamondon of Chicago is building a grain elevator two stories high and 106x126 feet, to cost \$20,000.

R. M. Oleott, grain dealer at New York, N. Y., has made an assignment. Liabilities, \$100,000 to \$150,000.

Studebaker, Sale & Co., grain and hay dealers and elevator men of Buffton, Ind., have dissolved partnership.

Mulford & Co. of Minneapolis, Minn., have begun refitting the "Christian Elevator" at Valley City, N. D.

Herman Crohen, commission grain dealer at New York, N. Y., has been succeeded by Crohen, Mascord & Co.

The Altpeter Grain and Malt Company has been incorporated at Milwaukee, Wis., with \$100,000 capital stock.

Chester R. Manly, grain dealer at Mannville, Ill., has suspended business. His assets are said to be ample.

E. L. Drewy, brewer of Winnipeg, Man., contemplates building an elevator of 30,000 bushels' capacity.

The Walter-Raupfer Brewing Company has been incorporated at Columbia City, Ind., with \$100,000 capital.

A. P. Snyder has finished his new elevator at Stanford, Ill., at a cost of \$3,000. Its capacity is 15,000 bushels.

A. S. Bright, dealer in grain, coal and live stock at Cumberland, Ia., has sold a half interest in his business.

A. J. Sawyer & Co., grain commission firm of Minneapolis and Duluth, Minn., have closed up their business.

The firm of W. J. Riley & Co., grain merchants at Indianapolis, Ind., has been succeeded by William L. Higgins.

Peake & Dunning of Kansas City, Mo., failed recently by reason of an unsuccessful effort to run a wheat deal.

The Osborne & McMillan Elevator Company has been incorporated at La Crosse, Wis., with \$300,000 capital stock.

Three ears of new flaxseed were received at Chicago, Ill., July 26. The seed was from the Southwest and of good quality. Some thought it somewhat bet-

ter than the first new seed received last year. Last year the first new flax was also received on July 26.

George Tileston of St. Cloud has purchased of Mr. Fitch his grain business at Richmond and elevator at Roscoe, Minn.

W. H. Joslin, dealer in grain, coal and farm machinery at Randall, Kan., has been succeeded by Joslin & Githens.

Thomson & Lewis at Vermillion, S. D., have adopted the Dickey Overblast for cleaning grain in their elevator.

The mammoth elevator of the Chesapeake & Ohio road at Newport News, Va., has recently received six large scourers.

The Dickey Manufacturing Company's Grain Cleaners have gone in the elevators of Smithland, Ia., and Chillicothe, Mo.

The contract has been let for the new 30,000-bushel farmers' elevator at St. Peter, Minn. The cost is estimated at \$6,500.

The firm of F. H. Bennett & Co., formerly grain merchants of Clay Center, Kan., has been succeeded by S. R. Bagwell.

The elevator for the Grand Republic mill at Superior, Wis., is having the heavy frame timber work put in the first stories.

W. H. Purcell & Co. of Chicago, Ill., are building a brick elevator and malt house five stories high with two-story basement.

The West Mansfield Elevator Company at West Mansfield, O., was incorporated August 7, with a capital stock of \$10,000.

Abbott & Son at Charter Oak, Ia., have put in a new No. 6 Overblast Cleaner of the Dickey Manufacturing Company's make.

The elevator at Durant, Ia., is rapidly nearing completion. Its capacity is greater than the one which was burned last summer.

Grain elevators will at once be built along the new line of the Sioux Falls & Yankton Railroad at every station between the cities.

Grain bags made at the Walla Walla, Wash., penitentiary have been reduced from 6½ to 6 cents, the lowest figure ever reached.

The employes of the Duluth Elevator Company at Duluth, Minn., were given their annual picnic July 20. The party numbered 100.

The L. T. Soule Elevator Company of Minneapolis, Minn., has brought suit against Hugh S. Murphy to recover \$1,000 due and unpaid.

The elevator at Shistak, Neb., has put in the A. P. Dickey Manufacturing Company's Overblast for general purposes in cleaning grain.

Crocker, Fisk & Co., millers at Minneapolis, Minn., have made an assignment to the Minneapolis Trust Company. Liabilities, \$200,000.

Mr. R. Ritz of Eldon, Ia., has purchased for his mill a 54"x16' two-sheet boiler from the Murray Iron Works Company of Burlington, Ia.

An elevator and dock are to be constructed at Port Royal, S. C. Specifications will be furnished bidders by S. Millard, engineer, Port Royal.

The Lockhart Oil Mill & Powder Company of Lockhart, Tex., received their charter August 5. The capital stock of the company is \$50,000.

Chalmers & Watson have thoroughly overhauled their elevator at Pilot Mound, Minn. A steam engine, grain cleaner, etc., have been put in.

The first shipment of wheat for export to arrive at Seattle, Wash., came in August 2, from Julietta, Idaho, and consisted of two carloads.

The cottonseed oil mill at Navasota, Tex., has undergone a thorough overhauling and many improvements in machinery have been added.

The first carload of new barley at Chicago, Ill., was received from Northwestern Iowa, July 29. It was stained, not cleaned, and graded No. 4.

James A. Loudon, formerly manager for Dawson, Blackmore & Co., grain dealers at Cincinnati, O., has left them and started on his own account.

Commission merchants of Toledo, O., have agreed to charge one cent per bushel on wheat during August and September where advances are made.

The farmers have decided to close their elevators at Clitherall, Vining and Henning, Minn., rather than operate under the new state warehouse law.

The B. Rockwell Merchandise and Grain Company of Junction City, Kan., bought the first lot of new wheat July 10 and shipped a carload next day.

The Abner L. Backus & Sons Company of Toledo, O., has paid its creditors in full and resumed business. This firm was financially embarrassed last June.

A meeting of farmers and business men has been held at Magnolia, Minn., to mature the plans for the new elevator. Very gratifying interest was mani

fested. With the money subscribed at the meeting, and the amount which has subsequently been raised the building of the elevator is assured.

Cardin & Bibbs of Tacoma, Wash., have leased the 55 stations of the Northern Pacific Elevator Company in the Palouse Valley and on the main line.

Livermore & Mayne, dealers in grain, hay and lumber at Denver, Colo., have made an assignment to Fred A. Truesdell. Liabilities \$7,791; assets \$36,420.

The A. P. Dickey Manufacturing Company's end-shake warehouse mills have been adopted by the elevators at Kingsley, Ia., Mason City, Neb., and Archer, Iowa.

The grain merchants of Chicago are seeking to adopt some plan by which returns on cars of grain, feed, etc., sold on track can be more promptly obtained.

M. J. Forbes, assignee of the Northern Pacific Elevator Company, has filed schedules at St. Paul, Minn., showing assets of \$1,099,006 and liabilities of \$1,791,868.

The managers of the Farmers' Elevator Association of St. Paul, Minn., have decided to close their elevators rather than operate them under the rules of the new law.

Metzger Bros. & Co., dealers in flaxseed and manufacturers of linseed oil at Toledo, O., have been succeeded by the Metzger Linseed Oil Company, recently incorporated.

The number of cars of wheat inspected at Winnipeg, Man., for the five weeks ending with the week of July 29 were 309 as compared with 1,096 for the same period of 1892.

Samuel Sweeny of Walla Walla and J. L. Killain of Pendleton, Ore., have leased eighteen of the grain houses on the Pacific slope, owned by the Northern Pacific Elevator Company.

A movement is on foot at Fargo, N. D., to provide for the erection of a tow mill at that place. It is thought that the farmers in the vicinity would raise the necessary amount of flax.

The cleaning house of the Grand Republic mill elevator at Superior, Wis., will, if work continues to progress without interruption, be ready for the machinery in a couple of weeks.

P. Woodward of Le Sueur, Minn., will soon enter the field as a wheat buyer, using the grain warehouse at the depot as a depository. This will give Le Sueur three independent wheat buyers.

H. M. Daggett of Minneapolis, Minn., has begun an action against the Gilbert Grain Company, same place, to collect \$244.20, which it is claimed the defendant collected and failed to turn over.

The Dean Mill Company has been incorporated at Ava, Jackson County, Ill., for dealing in grain and making flour. The incorporators are Murry Dean, Henry C. Curtis and Marion S. Rogers.

Daniel McLane has leased the farmers' elevator at Litchfield, Minn., for a nominal rental. He has agreed, under heavy bonds, to pay within 8½ cents of Minneapolis prices during the season.

The Northwestern Commission Company has been incorporated at Chicago, Ill., to deal in grain, provisions and produce. Capital stock \$100,000; incorporators Byron M. Fellows, J. D. Good and Fred S. Comstock.

The Seattle, Wash., elevator it is expected will ship at least 1,000,000 bushels of wheat this season, brought from east of the mountains by the Great Northern Railway. The big warehouse is in charge of Samuel Calbeshead.

Corwin & Dennis have completed their new elevator at Williamston, Mich. The building has a capacity of 16,000 bushels and the machinery is driven by a 4-horse gasoline engine. Corrugated iron covers the roof and sides.

At the annual meeting of the Northwestern Farmers' Protective Association at Grand Forks, N. D., recently, those present subscribed stock for the erection of the proposed large farmers' elevator at Superior, Wis.

The "Neely Elevator" at Chicago, Ill., has been sold under foreclosure of mortgage by the Connecticut Mutual Life Insurance Company. The insurance company bought the property for \$152,000. A company has been organized to take the property from the mortgagee, make improvements and operate.

A temporary injunction was granted at St. Paul, Minn., August 8, by Judge Kelley of the District Court, restraining the State Railroad and Warehouse Commission from building the proposed big state elevator at Duluth. The application was made by Henry Rippe, an elevator man at Fairmont.

The bids for the new state elevator at Duluth, Minn., were opened August 2 by the railroad and warehouse commission and were as follows: Heidenrich Company of Chicago, \$242,000; Barnett-Record Company of Minneapolis, \$229,500; Metcalf-McDonald Company of Chicago \$239,000; Honstain Bros. of

Minneapolis, \$238,000; Butler Bros. of St. Paul, \$209,000; J. T. Moulton & Son of Chicago, \$237,000; T. H. O'Neill of St. Louis, \$198,700. The contract will be awarded soon.

A grain elevator and starch factory have been built at Superior, Neb., by the Superior Starch Company of which David Guthrie is president; C. Cochrane, vice-president and superintendent, and J. B. Gray, secretary and treasurer.

Foster & Williams Manufacturing Company of Racine, Wis., have just put three more of their latest improved flax brakes with picker attachment into the mills of the Spring Valley Flax Fiber Company at Spring Valley, Minn.

The Minneapolis & Northern Elevator Company has applied for licenses under the new state law for country elevators for 38 hours, the Great Northern Elevator Company for 20 hours and the Cargill Elevator Company for 23 hours.

Chas. W. Bell, secretary of the Winnipeg Grain and Produce Exchange at Winnipeg, Man., reports up to the present very little storage at that point, although it is likely that an elevator of 750,000 bushels' capacity will be erected shortly.

The tow mill at Spring Valley, Minn., is being rapidly pushed to completion and will soon be ready to handle the new crop. Where farmers have been wasting one-fourth of the straw by cutting high they can now increase their revenues by cutting it low.

Grain receivers at Duluth, Superior and West Superior have been notified by the Great Northern and Northern Pacific Railroads that all charges on grain arriving over their lines will be collected from the actual receiver, instead of from the consignee as formerly.

As an advertisement F. H. Crane & Sons, retail grain and feed dealers at Quincy, Mass., have had made to order a fine delivery rig, consisting of a "caravan" wagon weighing 1,200 pounds, highly ornamented, drawn by a very heavy horse in a brass-mounted harness.

The farmers' elevator at Henning, Minn., closed August 1 until September 1. The stockholders will hold a meeting in the meantime and decide what action will be taken in regard to scrapping the elevator law. The sentiment thus far seems to be in favor of testing its constitutionality.

The Kingston & Montreal Forwarding Company has handled 4,000,000 bushels of grain this season and the Montreal Transportation Company about the same amount. The shovelers are rejoicing over the briskness of trade, as they have been averaging from \$25 to \$40 per week per man for two months past.

The elevators of the Northern Pacific Elevator Company, on the Washington & Columbia River Valley Railroad, have been leased by Receiver Forbes to S. B. Sweeney of Walla Walla, Wash., and J. L. Killain of Pendleton, the former taking the Washington elevators and the latter those located in Oregon.

The Livingston County, Ill., farmers are experiencing considerable uneasiness on account of the failure of the Middle Division Elevator Company. The concern controlled twenty-one warehouses at various stations throughout the country, and many farmers had stored their crops of last year with the company.

R. G. Risser of the firm of McCray & Risser, grain dealers at Kentland and Raub, Ind., and Elfrer, Ill., has sold his entire interest in the business to James L. Morrison of Kentland, the firm of McCray & Risser being dissolved by mutual consent. The business will be conducted in the future by McCray & Morrison.

A third trial has been granted by Judge Smith at Minneapolis, Minn., in the famous case of Thomas J. Thompson vs. Charles R. Ermantrout et al, in which the jury rendered a verdict against the Star Elevator Company for \$20,000 damages on account of the elevator falling on and crushing Thompson's feed mill.

Jackson D. and Abram F. Mercer have brought suit at Toledo, O., against the Abner L. Backus & Sons Company, the Union Railroad Elevator and Transportation Company, and the Second National Bank to recover \$500 for 476 bushels of wheat, which the A. L. Backus & Sons Company has withheld from them since July 5.

An elevator company at Winona, Minn., in connection with its 70 elevators, operates a 100-barrel mill in South Dakota. The flour is disposed of in the following manner. Each of the 70 elevators is made a retailing depot to which the flour is sent and kept in stock by them. A farmer with wheat wanting flour simply exchanges enough of his grain to offset the quantity of flour wanted. Thus a regular exchange trade is carried on.

The case of Laura Walton, who is said to have been a partner in the alleged bogus commission firm of E. E. Walton & Co. at 119 South Water street, was again before Commissioner Hoyne last week. Post-office Inspector Flemming, who has charge of the case, testified as to the fraudulent letters sent through the mail by the firm. Mrs. Walton, the defendant, was placed on the stand and swore that she had no

interest in the firm, and was not aware of its methods. The case was continued until August 5 for further evidence. Ernest Walton, the husband of the defendant and head of the firm, has so far escaped arrest.—*Hay There, Chicago.*

The Duluth Board of Trade, Duluth, Minn., held a special meeting August 7, at which the system of the Superior Belt Line Elevator Company was made regular and the bonds of the company approved. Grain receipts for wheat stored in elevator "M" and warehouse "N" were made regular for delivery upon the Duluth Board.

George Spencer of Duluth, Minn., on August 7 was appointed receiver for the Lake Superior Elevator Company and the Union Improvement Elevator Company, both of Duluth, Minn. The companies own a number of elevators and have been involved by the failure of the Northern Pacific and Red River Valley Elevator Companies.

The elevators on the Great Northern owned by the late A. A. Turner, Wadena, Minn., located at Wadena, Hewitt, Sebeka, Menaliga and Park Rapids, have been purchased by A. P. Ireland of Minneapolis, Minn., and B. H. Pettit of Verndale, Minn. The consideration was \$24,000. Mr. Pettit will give his attention to managing the houses.

N. H. Warren & Co., elevator men and commission grain dealers at Chicago, Ill., have failed for the second time. On August 2 they confessed judgment for \$11,903 in favor of Edward C. Rice of Rice, Quinby & Co. The former failure was in May. The members of the firm are Nathan H. Warren, Cyrus T. Warren and Charles C. Warren.

Head & Bossons, elevator contractors of Portage la Prairie, Man., have at present under construction elevators of 30,000-bushel capacity each at Cypress River, Baldrum, Indian Head, Carduff and Sintahuta, Man. They have also an elevator of 40,000-bushel capacity in progress of construction at Kemnay, and one of 20,000-bushel capacity at Bagot.

H. Mueller & Co. have recently added to their barley house, Fifty-fifth street and Stewart avenue, Chicago, Ill., five large size separators and two brush machines made by Barnard & Leas Manufacturing Company, Moline, Ill., five stands of elevators, nine Cyclone Dust Collectors of the largest size. The millwrighting work was in charge of M. A. Felmlee.

The report of Grain Inspector E. P. Nelson of Superior, Wis., for the month of July shows as follows: Cars of wheat inspected on track Northern Pacific, 317; Eastern Minnesota, 2,586; Omaha, 81; total, 3,051 cars. Total number of bushels of wheat received for the month, 2,043,235. Cars inspected out of store, 19. Number of bushels of wheat shipped during July, 1,550,905.

Jas. Stewart & Co. have commenced work at New Orleans, La., on the new elevator which the Illinois Central Railway is to construct at that place. The elevator will have a capacity of 250,000 bushels and will be constructed solely for the purpose of domestic trade. The building of the elevator is expected to create a better grain traffic and prove a mutual benefit to local dealers and to the railroad.

Maguire & Co. of Cincinnati, O., have preferred charges of unmercantile conduct with the secretary of the Chamber of Commerce against the general agent of the Star Union Freight Line. An agent of the line contracted with Maguire & Co. to deliver a number of cars of corn in New York in four days' time, but failed and they suffered a loss on the shipment. Attempts to settle the loss were made without effect and Maguire & Co. brought the matter before the Chamber of Commerce.

The annual report of Grain Inspector Horne of Winnipeg, Man., gives the amount of grain inspected during the year ending July 31 as follows: Nos. 1 and 2 hard 3,426,150 bushels; No. 3 hard 1,125,150 bushels; Northern grades 557,050 bushels; White Fife 108,550 bushels; Frosted 604,500 bushels; rejected, smutted, no grade, etc., 1,407,250 bushels. Total bushels inspected 7,228,650 bushels. This only includes wheat inspected at Winnipeg, as a portion of the crop was sent to Fort William for inspection.

Edward R. Bacon and James L. Best, grain dealers of Chicago, Ill., under the firm style of the Middle Division Elevator Company, confessed judgment in the Circuit Court August 11 for \$25,000. The business of the company, it is thought, will continue as in the past, for, although the members of the company have been forced to borrow money, they have ample property back of them. The confession was made on three notes, amounting to \$25,000. The money was secured from the Union National Bank, and the bank desired to be protected.

The new Chesapeake & Ohio grain elevator which is being built in Richmond, Va., will be completed by the 15th of the current month. It has a capacity of 125,000 bushels and is arranged to handle six carloads at one time. The structure will cost \$25,000. The structure measures 50x80 feet and is 125 feet in height. It is built of wood covered from top to bottom with corrugated iron. The interior arrangements are of the latest and most approved pattern and grain can

be unloaded with great ease and celerity. There is a track on each side of the elevator, and iron spouts extend from the bin to the cars.

The Yazoo & Mississippi Valley Railroad Company has applied for a permit to erect a \$54,000 elevator in New Orleans. The site selected is on Howard street, bounded by Perdido, Freret and Poydras streets. The plans and specifications for the elevator have been submitted to the building inspector. The contract for the work has been given to the firm of James Stewart & Co., who built the two elevators at Southport.

W. H. Harper has notified the trade that receipts issued by the Chicago and Pacific Elevator Company for grain stored in the Hess elevator "A" will not be regular for delivery under the rules of the Chicago Board of Trade after August 29. Parties holding such receipts may, upon application, have the property transferred to Pacific elevator "B" without extra expense, and have regular receipts issued for the same. The elevator in question is one made "regular" last spring under the emergency clause in the rules, which provides that the directors may declare regular any storehouse when there is a call for more room than can be supplied by the usual capacity. All warehouses are regular from July to July, and under the rules of the Board no receipts issued on grain received in any warehouse shall be regular for delivery after that date unless the warehouse upon which it has been issued has again been declared "regular." There is also this provision, which explains the necessity of the notice first quoted. Receipts issued before the first day of July by warehouses which have been regular warehouses during the preceding year, but which have not been declared regular for the succeeding year, are good for only sixty days after the first of July.

Fires, Casualties, Etc.

W. S. Winkler's grain elevator at La Due, Mo., was burned July 11.

John McCrea's grain warehouses at Guelph, Ont., were burned July 19.

Mr. Sigmond's grain and hide house at Bowie, Wis., was recently burned.

T. W. Martin, dealer in grain and hay at Delano, Cal., recently sustained loss by fire.

E. J. Miller's grain elevator at Montmorenci, Ind., was recently burned. Insurance, \$2,000.

James G. Brady's grain house at Eureka, S. D., was recently burned, with 200 bushels of wheat.

Scruby Bros., grain and implement dealers at Wheeling, Mo., recently suffered a loss by fire.

Pearce & Booth, dealers in grain and hay at Bartow, Fla., recently suffered loss by fire. Insured.

The grain elevator of the Union Mill Company at Waterloo, Ia., was partially unroofed by a cyclone July 13.

William Scott's grain and hay warehouse at Sherman, Tex., was recently burned. Loss, \$2,500; insurance, \$1,500.

The Pacific Elevator Company's elevator at Morton, Minn., was burned on the night of July 21, with 10,000 bushels of wheat.

An elevator at David City, Neb., owned by James Bell and Calmar McCune, was recently burned. Loss, \$6,000; insurance, \$4,000.

Marfield & Co.'s large grain elevator located at Schooley's, O., east of Chillicothe, has been burned. Loss \$10,000; insurance \$3,000.

W. R. Crackel, grain dealer at Lawrenceville, Ill., was badly hurt recently by a timber falling on his foot while tearing down an old warehouse.

The grain warehouse owned by Knoxon at Wapella, Assa., has been destroyed by fire. Tramps sleeping beneath it is the supposed cause of the fire.

E. F. Cool's grain elevator at Clarksville, Mich., was burned on the night of July 29. The building was partially filled with wheat. Loss about \$1,000.

Disher & Thompson, grain and general merchants at Mercer, O., lost tile mill, grain elevator and general store on July 29, by fire. Loss, \$6,000; partially insured.

An unoccupied grain elevator on the canal bank at Montreal, Que., was burned at midnight July 5. Loss, \$40,000. The building was owned by Frothingham & Workman.

The grain elevator owned by J. W. Rogers at Chicago, Ill., was almost totally destroyed by fire the afternoon of August 5. The fire had its origin in the engine room. There was no one in the elevator at the time of the fire except a man named Farrell and a

stranger. The former was taken to the police station, but could give no information about the fire. The case will be investigated.

The "Farmers' Alliance Elevator" at Genesee, Idaho, was burned at an early hour on the morning of July 25, with 42,000 bushels of wheat. Loss, \$35,000; insurance, \$16,000.

The elevator of McLeod Bros. at Marietta, Kan., containing 60,000 bushels of wheat, was consumed by fire on the morning of August 10. The losses are \$30,000; insurance, \$15,000.

The grain elevator belonging to the Flint & Pere Marquette road located at Vassar, Mich., was burned August 2. About 6,000 bushels of wheat were consumed. Loss, \$35,000; insurance, \$19,500.

On the morning of August 13 the Keiser, Holmes & White Company's elevator at Gibson City, Ill., was burned; twenty-one freight cars, two of them loaded with grain were also destroyed. Loss \$20,000.

An old grain elevator at Benson, Minn., was burned July 24. Loss, \$7,000; insurance, \$5,000. The building was owned by the Minnesota & Dakota Elevator Company and had a capacity of 50,000 bushels.

The Wells, Pearce & Co. flat elevator at Morris, Minn., was destroyed by fire August 1. It is supposed that the fire was caused by tramps. It contained a small quantity of grain. Fully insured.

E. M. Upton's warehouse at East Carlton, N. Y., was burned July 22, with 6,000 bushels of wheat, 500 bushels of oats and \$300 worth of binding twine. Loss on building, \$2,500. Loss on stock, \$5,500; insurance, \$4,000.

A. F. Walther's feed store and grain elevator at Chicago, Ill., were burned on the night of August 1. The building was a frame structure and contained several hundred tons of grain, hay and feed. Loss, \$25,000, of which \$15,000 was on stock.

John McDonald's grain elevator at Frankfort, Ill., was burned on the afternoon of July 18, with 3,000 bushels of corn in store and 700 bushels on track. The fire started in the engine room and spread like a flash through the entire building. The grain was insured. Total loss, \$6,500; insurance, \$6,000.

An accident occurred in the terminal elevator at West Superior, Wis., August 10, by which Benjamin W. Tompkins, foreman for the General Fire Extinguisher Company of Chicago, Ill., lost his life. While supervising the putting in of an automatic sprinkler he attempted to walk a plank over one of the bins, which broke just as he reached the center, and he fell to the bottom fifty feet below.

Frederick Myerly, who is employed in the elevator of L. F. Miller & Sons at Double Pike Creek, Md., while attempting to place a belt on a large wheel July 28, had his right hand caught and in a moment his body was whirling through the air, and the next instant was dashed to the floor. He was considerably bruised and his right arm badly broken near the wrist, though his injuries are not regarded as dangerous.

Nelson Van Kirk, one of the oldest and best known members of the Chicago Board of Trade, committed suicide August 4 by shooting himself in the head as he sat at his desk in his office. In 1855 Mr. Van Kirk was a country grain buyer at Madison, Wis. Thence he removed to Milwaukee and joined Peter McGeogh in the same business. The firm built up a large business. He came to Chicago in 1880 and formed a partnership with Robert Lindblom. Recently his financial affairs had not been satisfactory, which is the probable cause of his death.

OBITUARY

T. W. Lowrey, dealer in grain at Lincoln, Neb., died recently.

Edward H. Brown died at his home, No. 77 South Fifth street, Brooklyn, N. Y., July 22, in the 62nd year of his age. For over forty years Mr. Brown had been engaged in the grain elevator business. For thirty years he was connected with the International Grain Company and the rest of the time with Jones & Co.

A fire destroyed 1,200 acres of wheat at Athlone, Cal., recently, causing \$15,000 loss.

The total value of imports of merchandise admitted free of duty during the month of June was \$43,927,333, as compared with \$41,114,986 for the same month of 1892. The total value of the dutiable imports for June was \$32,190,014, against \$30,901,582 imported in June of the year preceding. The total imports of merchandise, free and dutiable, for the year ending with June was \$941,361,421, of which \$519,520,306 was free of duty, against \$827,402,462 during the crop year preceding, of which \$458,510,837 was admitted free of duty.



CLEAN YOUR GRAIN AND SEEDS.

The new crops of grain and seeds are being harvested and forwarded to market. At this season of the year it may not be out of place to remind interior shippers that a little extra care in cleaning the new grain and seeds will amply repay them. Parties who are able to pay cash for grain and seeds at the present time are inclined to scrutinize offerings very closely, and the better samples more readily attract their attention. Besides, the best qualities are more readily handled by commission houses, and returns more promptly made, which is quite an item when money is as scarce as it is at present.—*Trade Bulletin, Chicago*.

ALL AFTER GREAT BRITAIN'S HAY TRADE.

With a heavy hay crop assured, good care should be taken that other countries do not get ahead of us in supplying Great Britain's deficiency, for it should be borne in mind that the United States, Russia, Ireland and the Argentine Republic are all competitors for this trade, and are offering English houses day by day large quantities. Consequently, if our farmers stand out for too high prices, other countries will jump at the opportunity of placing their product at a little below our prices. Canadians must therefore be well on their guard, not to allow the English demand to be fed by other countries to the exclusion of our own goods, simply because we hold out for prices that are above the export basis.—*Montreal Trade Bulletin*.

DRAFTS AGAINST SHIPMENTS.

The shipment of grain from the country against which drafts are executed should be conducted on the most careful lines. Recently quite a number of drafts have been allowed to return to the shipper because the advices accompanying such draft were not specific and plain in describing the property on which advances were desired. It is suggested to country shippers in making shipments on which they desire advances by draft or otherwise, that they state fully the car number, initial, the quantity (as precisely as possible) loaded in car, and the grade it is calculated to inspect. To insure prompt payment of draft, the bill of lading must accompany the draft and notice of shipment, and draft must be made so as to leave ample margin for the protection of parties who are expected to make advances.—*Hay There*.

"A PRACTICAL LESSON."

A practical lesson is before the people of Minnesota. Under the elevator system of that state farmers could store the grain, receiving certificates, and raise money for immediate use on this warehouse paper. They could order the grain sold at their discretion, paying storage and getting the balance of the money due on their certificates. The late legislature of Minnesota, in response to a demand of "populist" politicians to help "the poor farmer," enacted a stringent law requiring elevators to take out a license, and that their charges and methods of business shall be regulated by the state railroad commission. The owners of the elevators will not take out a license and will cease to take wheat for storage. When they have the cash and the price appears favorable—that is, when they can resell it at a profit to the millers and ocean shippers—they will buy wheat and pay for it. The farmers can keep the wheat until they get ready to buy.—*Chicago Herald*.

THE HAY TRADE RECOGNIZED.

It has been well known and is now conceded that the hay trade has heretofore been looked upon as a minor consideration, from the fact that it has never been governed by any rules or regulations that have been backed by the authority that govern the trading in grains, even though its value as a crop stands in the front rank of products of the country and finds a market in every town and city in the land. The methods of handling the vast products both at points of production and consumption had been so loosely conducted that necessity compelled the calling together of the dealers to devise methods for putting it on a basis with other products of the soil, and by untiring efforts on the part of its members great improvements have been made and the hay trade is now being recognized as one of vast importance, as is evidenced by the calling together of committees at the Produce Exchanges throughout the country to devise rules governing the inspection and weighing of hay.—*Hay Trade Journal*.

The exports of timothy during June were 10,772 pounds, against 30,615 pounds exported during June, 1892. For the twelve months ending June 30, 7,077,131 pounds, valued at \$504,937, were exported, as compared with 10,318,074 pounds, valued at \$381,651, imported during the corresponding period of 1892.



Louis Cline, a stock and grain dealer of Nelson, Mo., and Miss Susie Baker eloped to Muscogee, I. T., July 25, and were married.

At a meeting of the hay and straw committee of the New York Produce Exchange Mr. Jos. Y. Roberts was appointed inspector in chief to begin September 1, when the new grades will be put in practical operation.

F. H. Irons, who has held the position of arbitrator for the elevator companies at Minneapolis, Minn., for about three years, has given up that position and will become a partner in the grain firm of Morton & Co. at Fargo, N. D.

H. Ferguson of Chatfield, Minn., has sold his grocery store at that place and will return to his former occupation of wheat buying. He has accepted a position with G. W. Van Dusen & Co. at Frankfort, S. D.

Chubillas Lulloohholz, a native Indian of Bombay, visited the Chicago Board of Trade recently, the guest of President Hamil. Mr. Lulloohholz is a partner of the firm of James Mackintosh & Co., London and Bombay, and is one of the largest grain shippers in India.



Work on the new flour exchange building at Superior, Wis., has been stopped.

Certificates of membership in the New York Produce Exchange have been held at \$525.

The inspectors of the Argentine Board of Trade passed upon ninety ears of grain in one day recently at Argentine, Kan.

Bids have been opened for the construction of the new building of the Duluth Board of Trade, but the contract has not been let.

We acknowledge the receipt from Mr. Alexander A. Bontell, secretary of Detroit Chamber of Commerce, of a copy of his recent report.

The Indianapolis Board of Trade recently requested the secretary of the treasury to make pension payments in currency to assist in the movement of the crops.

A rule is proposed for the Chicago Board of Trade requiring the president and secretary of corporations to be members in order to enjoy the privileges of the clearing house.

The directors of the Cincinnati Chamber of Commerce have approved a plan which provides for the payment of \$250 to the beneficiaries of deceased certificate members.

We are indebted to Geo. H. Morgan, secretary of the Merchants' Exchange of St. Louis, Mo., for a copy of the annual statement of the trade and commerce of St. Louis for the year 1892.

Lightning struck the roof of the Baltimore Corn and Flour Exchange recently, doing slight damage, and the members are only sorry it did not strike the wheat pit and galvanize the market into activity.

A committee has been appointed by leading hay dealers of New York to devise rules for the grading of hay. This committee consists of M. L. Rickerson, S. W. Bowne, Samuel Ingersoll, C. H. Kentgen and David Wells.

Three dollars for two dollars. The best for only \$2 a year. If you take the *Hay Trade Journal* it will cost you \$2 a year. The AMERICAN ELEVATOR AND GRAIN TRADE will cost \$1 per year, but if you take both together they will cost only \$2 a year.

The committee appointed by the largest hay merchants of New York, N. Y., to draft rules and regulations for grading inspection and exports of hay has adopted rules which will be referred to the trade. The listing of hay on the exchange is regarded as an important departure.

The hay committee of the Commercial Exchange, Philadelphia, Pa., met recently and formulated a schedule for the grading and inspection of hay at that port. The work of the committee will be submitted to the board of managers at the next meeting of the Exchange, when the plan will be presented to a meeting of the hay trade for their final adoption. Each

of the committee felt that a hay inspector was badly needed, as the shipper and seller were at a disadvantage as compared with other markets. The construction of a hay warehouse was a subject also discussed. Among other things Mr. E. L. Rogers, a member of the committee, said: "The shipper naturally wants a certificate of the trade, as it greatly lessens his risk. In regard to warehouses it has been fully demonstrated that it is impossible to handle hay, where there is only a track delivery, to the satisfaction of either the shipper or the buyer, from the fact that only the few bales visible at the car doors can be examined. I am in favor of all the railroads having proper hay terminals similar to that at West Philadelphia."

ITEMS FROM ABROAD

The Russian Agricultural Commission will petition for a repeal of the sliding scale tariff on cereals.

The official *Gazette*, Vienna, published an order July 20, prohibiting the exportation of hay, straw or other fodder from Austria-Hungary.

The Federal Council of Switzerland is granting, under certain conditions, a return of duties paid on maize, when the grain is destined for cattle food.

The total hay crop of the United Kingdom for the past three years has been as follows: 1890, 8,100,000 tons; 1891, 7,000,000 tons, and 1892, 5,500,000 tons. This year it is still less.

The Federal Council of the German Government has decided to prohibit the export of fodder. The step is intended to prevent the execution of large orders of hay from France.

Hungary's exports of wheat from August 1, '92, to June 1 were 1,964,000 quarters. The exports of rye during the same period were 705,000 quarters and of flour for the same term of months 3,493,000 sacks.

India's total exports of linseed for the year ending with March were 2,539,000 quarters, as compared with 2,659,000 quarters exported in the previous year, and 2,341,000 quarters represents the average amount for the previous years.

A large sale of hay and clover took place on the farms of Mr. J. Jeffries Davis near Stratford-on-Avon, July 19. About 720 tons were offered, the produce of 1889, 1890, 1891 and 1892. The total received for the entire lot amounted to £5,052, or an average on the estimated weight of just over £7 per ton, about \$35.

Grain is being imported by a large milling firm at Libau, Russia, from Koenigsberg, Germany. The buyers have contracted for the delivery of 300,000 poods of wheat monthly for twelve months. The German wheat is cheaper to them than the product of the fields of South Russia, the cost of grain transport by rail being enormous.

The total number of tons of hay imported into the United Kingdom during the month of June was 9,045, against 4,459 tons imported in June, 1892. For the six months ending with June the number of tons imported was 62,766, as compared with 26,066 tons imported during the same period of 1892. The total quantity of hay imported into the United Kingdom in the year 1892 amounted to 61,237 tons.

It appears that a considerable number of contracts have been made in the United Kingdom for the delivery of hay from Austria-Hungary. Although these contracts were entered upon prior to the issue of the edict forbidding export, the dealers plead inability to complete their engagements. The matter has been under the notice of Lord Rosebery, with the view of having the hardship redressed.

A special commission formed at Odessa to report on means to be adopted to diminish the proportion of impurities in wheat has recently submitted a report unanimously favoring that grain offered on the market must not contain more than three per cent. of foreign matter—a heavy fine to be paid by the seller for every unit above this percentage. The trade is looking forward with interest for what the government may do in adopting or rejecting the report.

A corn trade case between Davis vs. Cooper was heard in London, England, recently, before Justice Gainsford Bruce, without a jury. From the evidence of the plaintiff it appeared that he purchased of Mr. Cooper, the defendant, the business in Southampton Road, in the month of February, 1891, and that it was one of the terms of the arrangement for sale and purchase that the defendant would not, for a period of eight years from February, 1891, except in the interest of the plaintiff, be interested in the businesses of corn, seed, flour and coal merchant and forage contractor within a radius of 2½ miles from Southampton Row, and would not interfere with any of the present customers of the business to the prejudice of Mr. Davis without his consent; and in case of breach of the covenant, the defendant, Cooper, would pay to the plaintiff Davis the sum of £1,000 as liqui-

dated damages. The plaintiff, by his claim in the action, sought to recover from the defendant £1,000 as liquidated damages, alleging a breach of the covenant. His lordship gave judgment for the defendant Cooper, with costs.

During the month of June Holland imported 388,000 quarters wheat and 68,000 sacks flour; the export comprised 380,000 quarters wheat and 12,000 sacks flour. These figures represent the quantities delivered to consumption only, the quantities arrived being of course much heavier, viz., 620,000 quarters wheat. The net imports of wheat and flour counted together during the first eleven months of the current cereal year amounted to 1,500,000 quarters, compared with 1,800,000 quarters in the corresponding period last season.

Neither India, Australia, Chili or the Argentine Republic are now shipping at all freely. The first-named country has evidently a large surplus, but the decided rise in the Rupee Exchange, which is now 1/3d., and the very low prices offered from Europe evidently dispose the Indian grower to store his wheat in preference to selling it. Last week 62,000 quarters were shipped, making the total 1,097,000 quarters since April 1, against 2,442,000 quarters in the corresponding period last year, and 3,050,000 quarters in 1891.—*Millers' Gazette, London, July 26.*

The London *Times* recently referred to the subject of using wheaten loaves or eakes for horse feed as is being done in France, saying that the feeding of horses with bread is being seriously discussed in many quarters. Should the present scarcity and dearth of keep continue there is reason to believe that it may come into use, as there is no doubt that horse cakes could be made from coarsely ground wheat and put on the market at a very cheap price. Two or three of the leading Lancashire millers are understood to be actively following up the project of replacing dear feed stuffs with cheap breadstuffs, which would be a very practicable way of getting rid of two or three million tons of the surplus low grade wheat.

Algeria's exports of wheat from Aug. 1, 1892, to June 1 were 202,000 quarters, against 356,000 quarters exported in the same season of 1891-2. The exports of barley amounted to 304,000 quarters, against 343,000 exported during the same period of 1891-2. The exports of oats aggregated 105,500 quarters, against 123,000 quarters. Of flour Algeria exported 6,500 sacks since Aug. 1, 1892, compared with 39,500 sacks exported during the same period of 1891-2. Algeria's imports of wheat from Aug. 1, 1892, to June 1 aggregated 59,500 quarters compared with 55,000 quarters imported during the same period of 1891-2. The imports of barley amounted to 54,500 quarters, against 43,000 quarters. Of flour Algiers imported 82,000 sacks, compared with 49,000 sacks imported during the corresponding period of 1891-2.

Russia's exports of wheat from January 1 to June 19 were 4,151,000 quarters, against 6,207,000 quarters exported during the corresponding months of 1891. Of rye the exports amounted to 602,000 quarters, compared with 2,762,000 quarters. The exports of barley were 1,932,000 quarters, against 1,386,000 quarters. Of oats 1,150,000 quarters, against 3,331,000 quarters. Of maize 412,000 quarters, against 1,074,000 quarters. The total number of quarters of the five cereals exported from January 1 to June 19 amounted to 8,247,000 quarters, against 14,760,000 quarters exported during the same period of 1891. Buckwheat amounting to 26,780 quarters was exported, against 70,000 quarters. Of flour 75,360 sacks were exported, against 125,180 sacks. From January 1 to June 19 the proportion of cereals sent across the frontier was 6 per cent.; during the same period of 1891 the proportion was 8 per cent. The average weekly export of wheat from January 1 to June 1 was 173,000 quarters, against an average weekly export of 260,000 quarters for the same months of 1891.

France's total imports of wheat from August 1, 1892, to July 1 were 4,611,000 quarters, against 13,833,000 for the same period of the preceding year. The imports of rye were 2,800 quarters, against none imported during the same period of the preceding year. Barley amounting to a total of 775,000 quarters was imported, compared with 508,000 quarters for the same period of the preceding year. Oats amounting to 335,000 quarters were imported, as compared with 297,000 quarters for the same period of the preceding year. Maize aggregating 1,099,000 quarters was imported against 635,000 quarters. Beans aggregating 146,000 quarters since August 1 were imported, with none imported during the corresponding period. Flour aggregating 120,000 sacks was imported, as compared with 694,000 sacks the corresponding period. The total exports of France of wheat from Aug. 1, '92, to July 1, '93, were 739,000 quarters, as compared with 517,000 quarters for the same period of 1891-2. Of rye France exported 153,000 quarters, against 417,000 quarters. Of barley the exports were 225,000 quarters, compared with 1,158,000. Of oats the exports amounted to 136,000 quarters, against 612,000. Of maize the exports were 56,000 quarters, against 66,000 quarters exported. Of beans the exports were 13,000 quarters, compared with none exported in the same season of 1892. Of flour France exported 675,000 sacks, against 580,000 sacks exported during the similar season of 1891-2.

THE RIGHTS OF SHIPPERS.

[Paper read by A. C. Raymond of Detroit, Mich., before the World's Fair Congress Auxiliary, Department of Commerce.]

The topic assigned to me involves the consideration of several phases of the relations of shippers to transportation lines, to discuss all of which would outrun the limit of time which any single address ought to occupy. I shall, therefore, confine my observations to the first general division of the topic, "The rights of shippers against unwarrantable assumption of power by transportation lines," and especially railroad transportation lines. No one would think it necessary to dissent in this or any other department of the World's Congress Auxiliary the general question of the rights of citizens of the state or of the United States. They need no discussion, they are fundamental; they rest in the intuitive knowledge of every adult American; they are postulated in the birth cry of every child born in the United States.

To use and enjoy one's own absolutely free from private or public interference, so long as such use and enjoyment injures no other citizen and violates no duly authorized law, expresses the fundamental rights of citizenship in this country, which are applicable alike to natural and artificial, or corporate, persons. Railroad corporations, therefore, in the exercise of their functions ought not to disturb, as above set forth, the normal rights of shippers or any other class of citizens. That they are a disturbing factor in the body politic, and more or less oblivious to the obligations and duties of good citizenship, furnishes the occasion for the discussion of the topic now before us. The railroad problem, so-called, is generally assumed to be, and the conception is most industriously promoted by the railroads themselves, one of such bewildering complexity that its reasonable solution is substantially impracticable. Its only rivals in these respects in this country are the tariff question and the free coinage of silver.

The idea has been quite generally accepted hitherto, both by the people and the courts, that railroads were private enterprises affected with a public interest; but the public mind tends steadily to a reversal of this proposition and the substitution of the idea that railroads are public enterprises affected with a private interest. The arbitrary inequalities between citizens, created and fostered by these modern agencies, their enormous wealth and power, their covert but not wholly concealed efforts to dominate political parties and to control state and national legislation, the steadily extending control by the largest corporations of all competitive lines, necessarily forces an inquiry into the powers, rights and functions of this new force in our midst. I say new force, because it must be remembered that sixty-three years ago there were only forty miles of railroad in the United States, while to-day there are in round numbers 175,000 miles. It cannot be denied that the marvelous and unequalled development and prosperity of this nation has been coincident with and mainly the result of this increase of railway mileage. Standing to-day in the presence of the greatest industrial exposition the world has ever seen, within the borders of a city whose energy and enterprise have never been surpassed, the indebtedness of the American people to railroad corporations cannot be questioned.

It must not, however, be forgotten that this great railroad mileage has not sprung from moral, philanthropic or patriotic motives on the part of its promoters, but from the ordinary vulgar motives of personal profit and advantage. Railroad corporations are not, therefore, entitled to the slightest immunity from public criticism or from reasonable public control, or from the enforcement of their public obligations, by reason of the benefits they have conferred upon the people.

A slight examination of the earlier history of the United States will, I think, tend to confirm my intimation that the public functions of railroads have been too long concealed by the assumed paramount importance of their private interests.

One of the essential functions of all civil governments has been to provide ways and means for easy, open and equal intercommunication between its subjects through the agency of roads and canals, improved rivers and lakes. The Congress of the United States early recognized its obligations to the people in this respect, and in 1786 declared that "all navigable streams emptying into the St. Lawrence and Mississippi rivers, and the carrying places or portages between them should be common highways; that no tax, no impost, no duty, should ever be laid upon them, but that they should be forever free to all the citizens of the United States." When Ohio was admitted to the Union in 1803 it was upon condition that United States lands within her borders should not be taxed for a period of five years, and that of the proceeds of the sales of such lands, three per cent. should be expended by Congress in building roads within the state, and two per cent. on roads without the state. In 1805 President Jefferson, in his second inaugural address, suggested the expenditure of all surplus revenue after payment of the national debt, then nearly extinguished, upon roads, canals and certain other public enterprises, under the supervision of the respective states. By 1806 the fund for building roads outside of Ohio, arising from the sales of public lands in that state, had amounted to about \$13,000. In addition to this, Congress appropriated out of the treasury \$30,000. With this sum the building of the great National road was begun, which was to extend from Cumberland on the Maryland side of the Potomac to Wheeling on the Virginia side of the Ohio. The famous report of Secretary Gallatin of the Treasury Department in 1808, on roads, canals, rivers and harbors, gave additional impetus to the construction of roads and canals. When congressional aid and encouragement to these enterprises began to lag, some of the states, notably Pennsylvania, made large appropriations for bridges, turnpikes and canals. All avenues of transportation were free and open to the use of any citizen for the carriage of his own property, although in some states, notably New York, New Jersey and Massachusetts, exclusive privileges of carriage for hire had been granted on public roads. Then followed the era of steamboat development, and exclusive licenses were granted in several states for the use of this new agency of transportation. The decision of Chief Justice Marshall in the case of Gibbons v. Ogden rendered nearly all these privileges valueless, because most of them were connected, directly or indirectly, with interstate commerce, which, under the ruling in that case, could not be interfered with by any state. While not directly involved in this case, it followed as a substantial corollary to it that in avenues or agencies of transportation wholly or partially provided by the civil authority, no monopoly ought to be granted to any class of citizens. For the use of the various water and land thoroughfares constructed by the state or federal authorities, a toll was imposed, not for the purpose of profit, but of repairing and maintaining these government agencies. The imposition of these tolls was simply

a modified form of the exercise of the power of taxation, and like lawful taxes fell equally upon all citizens subjected to them. When the right of eminent domain and of imposing tolls was granted by the state to persons or corporations who undertook to provide for the people the same facilities which the state had provided, these powers were not granted because the state no longer recognized its obligations to provide the facilities, but because the people could be more efficiently and economically served by these agents of the state, for in my opinion such they were, and at the same time lose none of their rights to equal privileges and charges which direct service by the state necessarily involved.

The public functions and obligations of these corporations were steadily reeognized during this period, and the science of discrimination and favoritism was unknown.

Then came the railroad era. The imposition of tolls for the use of this new avenue of transportation, by any one disposed to place upon it his own vehicle, was speedily found to be impracticable. With the control of the rolling stock, or agencies, as well as the road bed, or avenue of transportation, the private interest of railroad promoters naturally began to overshadow their obligations as trustees for the administration of the public functions conferred upon them. The great and immediate reduction in cost of transportation, its enormously increased speed, the fairy-like transformation of remote districts of country into thriving communities, a development of trade and commerce which is the marvel of ages, and even now is but faintly comprehended, so occupied and dazzled the public mind that railroad magnates became uncrowned kings of society, whose business methods were scarcely questioned.

For more than forty years only here and there a protest was heard, and then the so-called Granger laws were enacted in some of the Western states. These laws, crude and ill-considered in many respects, were the evidence that the people were disposed to recall to the railroads their obligations to the public. Then followed the famous Hepburn investigation by a committee of the Legislature of New York, which revealed a condition of corruption and discrimination among the railroads of that state, and a forgetfulness and disregard of their trusteeship and its duties which were astounding.

About two years prior to this the first bill was introduced into Congress looking to the federal control of railroads. The Hepburn investigation resulted in the appointment of a railroad commission in New York, and the revelations of the investigation caused increased activity in Congress for federal control. The opposition of the railroads to national supervision was naturally bitter and unflagging, but ten years after the introduction of the first bill the interstate commerce act became a law.

The railroad interests assumed to be in a panic of apprehension, and the most disastrous results were by them confidently predicted. For the nine months immediately following the enactment of the law the most of its provisions were quite generally observed, and that year proved to be an unusually prosperous one for the railroads. By this time the corporations had recovered their equanimity, and began anew their favoritism and discrimination by various devices which did great credit to the ingenuity of their managers. This discrimination has continued ever since that time. Last December at a hearing before a committee of Congress at Washington, it was openly declared by the president of one of the leading railroads of the United States that the interstate commerce act was "a dead letter." At the same meeting another and equally distinguished railroad president used these words: "To say that the railroad transporters of the country, the transportation interests of the country, are observing the open and published rates is simply a farce." He further said, "I do not believe at the present time that the observance of published rates is a matter that is expected in this country." These most extraordinary statements were made in my hearing, and in the presence of the members of the Interstate Commerce Commission, who were present in the committee room. These same distinguished presidents at the same time, and with no attempt at concealment, assented in substance that the law would continue to be violated unless certain amendments to the law, which they advocated, were made. The startling audacity of these utterances, the defiance of law which they breathed into the very face of representatives of the legislative and executive authority of the government there present, may well arrest the attention of every shipper and every citizen. Citizens of this country generally are asserted to be equal before the law, but for the first time do we find two citizens equal above the law. Must we revise even the popular definition of a railroad corporation as a private enterprise affected with a public interest, and substitute this, "a private enterprise affected with scarcely a public interest?"

Can it be that railroad managers have not only again forgotten that the privileges and powers they have were given them in trust for the people, but that they propose deliberately to violate the very laws enacted to enforce the trust? Can they wonder that a certain class of citizens are demanding that the government shall re-assume its trust, and itself exercise its original functions of providing the means of intercommunication among the people? Personally I am, for many reasons, utterly opposed to the assumption of railroad management by the civil authority, but it ought to be clear to railroad managers that what is now only a murmur of discontent may rise to a swelling chorus of demands which will drown all appeals to reason and sound business judgment. No better illustration of this danger can be found than the narrow escape from enactment into law at the last session of Congress of the anti-option bill. Nothing but a technical blunder by its promoter in the management of the bill prevented its final passage by Congress. Such complete disregard of the fundamental principles of our constitutional government has, in my opinion, never been seen in Congress, and socialism could receive no higher endorsement in the United States.

A feature of railroad encroachment which has not yet attracted the public attention which its importance demands is the steady consolidation of transportation interests into few hands. The persistency of this movement is not readily discernible by the public from the fact that the absorbed corporations are operated under their original names and by their own officials, while in fact subject to the control of the absorbing interest. The enormous annual income of some railroad magnates renders it comparatively easy to purchase a controlling interest in any other corporation whose road will strengthen their main line, or whose possession by a rival might endanger their supremacy.

It is, of course, extremely difficult, if not impossible, to prevent these purchases by any law now on our statute books, but the people of England in the thirteenth century, through what are known as the statutes of Mort Main, found a way to prevent the undue absorption by a great ecclesiastical corporation of landed property, to the manifest disadvantage of the sovereign. This object lesson is not likely to be lost upon the

same Anglo-Saxon blood in the twentieth or some subsequent century if the occasion demands.

Aside from the general danger to our institutions likely to arise from such a formidable concentration of wealth and power, which is not very serious as yet, the chief menace to shippers, of these consolidations of railroad interests, lies in the greater ease with which competition is controlled, and may eventually be prevented; competition not only between transportation companies themselves, but between shippers, for the control of all leading lines of business must fall, and Chicago furnishes the proof that the process has already begun, into the hands of the favorites of the great transportation companies. At this point the inquiry naturally arises, what if anything is the available remedy for this alleged threatening state of affairs? A reply in detail to this query cannot, of course, be made on this occasion, and the great difficulties which beset any specific remedy cannot be denied. It is, however, my opinion that no remedy is possible in which is not found these two essential elements, viz., open, free and untrammeled competition between all agencies and all avenues of transportation and the steady correction, strengthening and enforcement of the Inter State Commerce law until its original intent shall be fully operative.

We have been frequently told by our railroad friends that open competition confers no real benefit upon the public, that there are far too many railroads for the traffic to be carried, that the majority of them are unprofitable to their owners and managers because they pay little or no dividend on their stock, that competition distributes trade and ruins transportation lines, causing consequent uncertainty and losses in business, which ultimately rest on the public; that traffic associations as now organized are only instruments for dispensing justice to competing railroads and competing shippers. Thus does "Burnham Wood come to Dunsinane."

It will be remembered that the commercial organizations which initiated the Hepburn investigation before referred to, were told by the railroads that there was no occasion for the investigation. They were told by one of the counsel, who has since become one of the most prominent railroad officials in this country, that no one had any fault to find with railroad management in the State of New York, except "about nine thousand idiots" who had recently voted for a third party candidate for governor on a railway reform platform. The famous "Joint Letter" addressed to these commercial bodies, and signed by the presidents of the leading railroads, denied that special contracts were made with shippers, or that special rates were given to them, that these accusations were wild charges based on mere hearsay evidence, and were the product of the heated imagination of doctrinaire, and would-be reformers. Notwithstanding these denials, the books of a single corporation were shown, by the investigation to contain six thousand special rates given in a single year.

If shippers would still protect their rights against unwarrantable assumption of power by the railroads, they must be on the alert to detect and prevent all suppression of competition.

Even now they need to turn their eyes upon the great water routes which have fondly been believed to be permanent and effective competitors with the rail routes; for the steam tonnage of the lakes is surely passing into the control of the Trunk lines. In this year, 1893, one of these philanthropic Traffic Associations has adopted a resolution which prohibits any member of the association from entering into any agreement with any independent water carrier for the carriage of the traffic of Lake Superior ports upon through bills of lading, or upon any terms which will permit the business. This is an arrogant, arbitrary and illegal destruction of privileges and facilities which have never before been denied.

That other great water thoroughfare, the Erie Canal, which the state of New York has so assiduously encouraged, is slowly but inevitably yielding to the railroad colossus. During the six years ending in 1891, the receipts of grain at the seven Atlantic seaports have increased 18 per cent, and at New York have increased 21 per cent. Receipts of grain at Buffalo by lake during the same time have increased 70 per cent., while canal shipments from Buffalo for some period have decreased 31 per cent.

It is well-known that not very long ago a contract was made with a certain shipper by one of the Trunk lines, by which a half million bushels of grain was moved by rail from Buffalo to New York at about 2½ cents per bushel or considerably less than half the published tariff rates, and that much if not all of this traffic originated west of Buffalo, and was presumably within the provisions of the Inter State Commerce law.

Through canal traffic bound to points west of Buffalo, also appears to be passing largely into the control of the Trunk lines of railroad by means of the lake lines owned and operated by them, in connection with canal lines organized on the system of fast freight lines by rail. Thus the independent canal boat owner, and the independent canal forwarders are gradually but surely being rendered innocuous to the interests of the rail lines. The consolidation or amalgamation of railways as it is there called, became a serious question in England before 1873, and the railways and canal companies under their control, attempted the same discriminations which the American Trunk lines and their lake and canal connections are now making in this country, but these evils were partially suppressed by the regulation of railways act of that year. That act expressly prohibited "any agreement whereby any control over or right to interfere in or concerning the traffic carried or rates or tolls levied on any part of a canal is given to the railway company or any persons managing or connected with the management of any railway." The first attempt to control railways by legislation in England was crudely made in 1847. This not proving effectual a better measure known as the Cardwell act was enacted in 1854, followed by the far more effective act of 1873, which was still further strengthened and improved by the act of 1888. I commend a careful study of these acts to those American shippers whose rights are now endangered, in full confidence that by such study and a proper joint effort of the representative commercial bodies of the United States, our own Inter State Commerce Act may be so revised and amended as to do justice to our railroads, and more effectually protect the rights of their patrons.

We need not be surprised at our failure to accomplish in six years what has required forty-one years in England.

Another attempt by American railroads for the suppression of competition, which has been quietly but persistently made during the last five years, is in the direction of forcing some action by the executive or legislative departments at Washington, hostile to Canadian railroads, which shall cripple and ultimately prevent their carriage of American traffic.

The message of President Harrison to congress during the closing hours of his administration, aimed at the Canadian Pacific Railway, was the result of pressure brought to bear upon him, by American railroad owners and managers. Some of

these by their occupancy of high positions in political life can with more or less ease, mislead and misdirect the policy of a party or of an administration, in the direction of their private interests.

This is neither the time nor the place for a discussion of the merits of this movement, nor of the validity of the reasons adduced by those who are promoting it. It is however, I think proper to point out and call public attention to a movement of this kind, which if allowed to culminate in success, by the negligence or apathy of shippers, may seriously interfere with the relief which they are most urgently seeking.

In my opinion the penalty of imprisonment for violation of the Inter State Commerce Act ought to be repealed, because no manly railroad official will voluntarily complain of or testify against a rival while it is in force. A heavy fine assessed upon the offending corporation would be a much more effective deterrent. The provisions of the English law relative to the control of water carriers by railroads should be incorporated in our own. The long and short haul clause of the act ought also to be repealed. The theory of this clause is false as a matter of practical operation, is unscientific, is unjust to the railroads causing a loss of revenue to which they are justly entitled, and is unfair to large numbers of shippers. In lieu of this clause should be substituted upon freight traffic an open rate per ton per mile for any distance with reasonable terminal charges to be added according to the origin and destination of the traffic. All "rates in the aggregate" would thus give way to a ton rate, plus terminal charges, which would in my opinion check over building of railroads and be ultimately the equivalent of a division of territory which has worked so successfully in France.

This would also simplify the more rigid supervision and control of rates and classification by the government, which I think is sure to come, and the necessity of which has not been so clearly foreseen by our own statesmen as by those of other countries.

The words of Lamartine the French poet, historian and statesman, uttered half a century ago, against proposition in the French senate to surrender government supervision of railroad charges, are not without significance for us. He said: "What will be the consequence, if you do not keep in your own hands the power over the traffic, if the imprudent system you propose to inaugurate, results in an organization of railways which will combine in their own hands the collective interests in industry and financial operation of countless shareholders representing five or six thousand millions of francs?"

"Do not pretend to say that when the system is completed, you can then change the tariff? How will you do it? By the law? Who will authorize the law? The shareholders who in one way or another will be represented in this chamber. Create new lines? Who will vote the new lines? Again the shareholders in the old lines. Authorize rivals? Who will raise them? The shareholders represented in this chamber in the old lines. Do you want to better perfect or change the system on your lines? But who will better the condition, and who will create these reforms which are demanded for the general interest of the country? Why again the old shareholders in the old lines here represented. You must therefore before this great power comes into being, make head against that interest which otherwise will overtop every other."

In Germany in 1879, a committee was appointed to devise a unital tariff law for the regulation of railway charges. In a communication to that committee Prince Bismarck wrote as follows: "If it is deemed of great importance that the post office should have fixed rates of charges for letters, based upon a law authorizing it; if it is recognized as a universal necessity that the last remnant of private postal rights in the shape of the privileges that had once been given to the Prince Taxis family, should be acquired by expropriation by the state, it seems to me impossible of explanation why the more important and much more far reaching interests than those which are subserved by the post, to wit, those which are dependent upon the freight rates of railways should be left wholly to the exploitation of private interests.

"The postal system has its competition and control through every private vehicle which courses through the same district, whereas the railways have in certain local districts an absolute monopolistic dominion, and every competition is made impossible by reason of the difficulty and expense of building other lines, and even where there are several railways, an agreement is generally had between them by which they are substantially as one against the public. The phenomenon that such large public interests as that of railway transportation is surrendered to private interests, and local individual direction without absolute legal control, to prevent the exploitation of the other private interests of the community, finds no parallel in the history of modern states, and no analogy except in that of the farmers-general of public taxes. I therefore am determined as far as it lies in my power to get the administration of the empire to pass a law of unital tariff rates, which shall prescribe with strictness all freight charges."

THE MARKETS.

We will be pleased to publish under this head short reviews of the conditions ruling in the different markets. Copy must reach us by the morning of the 14th of each month.

HAY IN LIVERPOOL.—Theo. P. Huffman & Co., New York, N. Y., report cablegram received from their representative in Europe as follows: "Liverpool, Aug. 5, 1893, Human co.—Hay stop, Hat," which means according to code, market weaker; hay selling for \$26 per ton of 2240 lbs.

HAY AT CHICAGO.—M. M. Freeman & Co. report the receipts for the week ending August 12, 3,861 tons, against 5,640 tons for the previous week. Shipments for the week were 779 tons, against 863 tons for the previous week. **TRIMOTRY.**—Market quiet and steady; arrivals moderate; No. 1, \$12@12½; No. 2, \$10½@11½; Mixed, \$9@10½. **PRAIRIE.**—Receipts moderate; market firm but quiet. Offerings light. Choicest Kansas Upland, \$9@9½; choice Iowa Upland, \$8½@9½; good Iowa and Kansas Upland, \$7½@8½; good feeding hay \$6@7. **STRAW.**—Quiet and unchanged. Offerings liberal; market easy. Rye, \$6½@7; oats, \$4½@5; wheat 4½@5½. Market is usually quiet on Saturday, and August 12 was specially so, but little trading. Hay receipts the past week were considerably below the average, and market is in good condition, healthy, with prices ruling fairly remunerative.

Cinch bugs are reported doing great damage to crops in some of the Southern counties of Minnesota, particularly Blue Earth and Brown.

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY COMPANY.

General offices: 160 and 172 Adams street, Chicago. Industrial Department.

The Chicago, Milwaukee & St. Paul Railway Company's 6,150 miles of road traverses a vast territory, rich in all the resources that insure industrial success.

The industrial department is conversant with the iron, coal, lumber and tanbark, the water power (both river and artesian) for factory and electric power purposes, the markets, the transportation and financial facilities, and other interests on the line pertaining to industrial development, and disseminates information concerning same.

A number of new factories have been induced to locate—largely through the instrumentality of this company—at enterprising towns on its lines.

As the interest of the company is to secure the location of industries at places where the surroundings will insure their permanent success, the information furnished a particular industry is pertinent and reliable.

In the Eastern states, and in other parts of the world, factories are so congested and distant from the actual market as to result in fierce and destructive competition. That the West is taking a place as one of the great manufacturing territories of the world is forcibly impressing itself upon discerning and enterprising manufacturers. Steps should be taken by such while the field is as yet not fully covered, and while inducements are still being offered to locate in the West.

Individuals or companies wishing to embark capital in Western industry can find a profitable field.

For particulars relative to industrial advantages on the line, address

LUIS JACKSON,
Industrial Commissioner,
C. M. & St. P. Ry., 160 Adams street, Chicago, Ill.

B. & O.'S NEW THROUGH LINE.

PREPARING FOR THE IMMENSE TRAFFIC INCIDENT TO THE WORLD'S FAIR.

The management of the Baltimore & Ohio Railroad is preparing for an immense business in 1893, while the World's Fair is open in Chicago. The terminals at Chicago are capable of accommodating a much heavier traffic than is now being done, and important changes are being arranged for the handling of very heavy freight and passenger business to the West from New York, Philadelphia and Baltimore. New equipment for largely increased passenger business and an extensive stock of freight cars have been ordered. The various roads of the system will be improved by straightened lines, reduced grades, extra side tracks and interlocking switches. The new line between Chicago Junction and Akron has shortened the distance between Chicago and tidewater twenty-five miles, and between Pittsburgh and Chicago fifty-eight miles.

The distance between Chicago and Pittsburg and Chicago and Cleveland by the construction of the Akron line and the acquisition of the Pittsburg & Western line and the Valley Railroad of Ohio is about the same as via the Lake Shore from Cleveland to Chicago, and by the Pennsylvania from Pittsburg to Chicago. The alignment is to be changed and grades reduced to a maximum of twenty-six feet. It is expected that within twelve months the old Baltimore & Ohio through line between Chicago and the Atlantic Ocean will have passed away and the new line via Pittsburg be established, with no greater grades or curvature than on any of the trunk lines.

Work has already begun east of Pittsburg to meet improvements making west of Pittsburg. These improvements will consist of additional second and third tracks, a general correction of the alignment and completion of the double track on the Metropolitan Branch. It is expected that the new through line will be ready simultaneously with the completion of the Belt Line through the city of Baltimore, which is intended to unite the Washington branch with the Philadelphia division and do away with the present line via Locust Point. Forty new and powerful locomotive engines were added to the equipment during the last two months, and others are in process of construction. The permanent improvements now under way and in contemplation involve the expenditure of some \$5,000,000.—*Baltimore American*.

In Machinery Hall at the World's Fair, Section 26 O28, there is displayed a scale of the Chicago Automatic Scale Company at work. Wheat is the cereal being weighed, and the precision and accuracy with which the scale works justifies all the praise bestowed upon it from those by whom it is used. Its construction is very simple and this simplicity tends to make it more practical and more lasting. Its action depends merely upon the law of gravitation, the wheat falling into the receiving hopper is weighed and discharged automatically. Mr. Stewart, the manager, at No. 316 Chamber of Commerce Building, Chicago, Ill., is constantly in receipt of letters from grain dealers who use the scale, praising its accuracy and efficacy.



TRAVELERS WANTED.

We want three traveling men, state experience and salary wanted.

GRAIN AND HAY, care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

POSITION WANTED.

I want a position as manager and buyer in a grain elevator. Six years' experience; good reference, and bonds if wanted. Will send my photograph and full particulars to parties that will write to me. Address

JOS. PAULSON, Slayton, Minn.

NEW ENGLAND TELEGRAPH CIPHER AND DIRECTORY.

Jennings' New England Telegraphic Cipher and Directory of the grain, feed and flour trade of New England can save you 25 per cent. more than any other cipher. It is the most practical book for doing a New England business. For sale by

HENRY JENNINGS, 613 Chamber of Commerce, Boston, Mass.

POSITION AS MANAGER WANTED.

Position wanted as foreman and manager in some good elevator. Have had nearly ten years' experience in handling grain of all kinds and am a good bookkeeper. References given upon application as to character and ability. Single and will go to any good locality. Address

J. S. HAMILTON, Stuart, Neb.

WANTS POSITION IN ELEVATOR.

A thoroughly competent grain elevator man, who has had several years' experience in the elevator business, who is not afraid of work, with best references as to honesty, sobriety and good character, fully competent of taking charge where a reliable man is needed, wants a situation. Address

J. B., care of AMERICAN ELEVATOR AND GRAIN TRADE.

POSITION WANTED—HAS CASH.

A position as grain buyer, manager of station or office work. Can do any part or all. Have had ten years' experience in the grain business. Understand running gasoline or steam engines. Worked 7 years for one firm, from whom I can furnish references. Can loan employer some cash if needed. Will go to any state. Address

A. F. B., care of AMERICAN ELEVATOR AND GRAIN TRADE.

DAVIS GRAIN TABLES.

The value of wheat or any grain at 60 pounds to the bushel, for any amount less than 100 bushels is shown without addition or multiplication, and for any amount over 100 and under 1,000 bushels, with but a single addition; at any price from 25 cents to \$1.25 per bushel. The value of bushels and pounds of other grain also is shown at 56, 48 and 32 pounds to the bushel at any price from 15 cents to \$1.50 per bushel. Price, postpaid, \$1.25. Address

E. D. DAVIS, Room 63, Chamber of Commerce, Minneapolis, Minn.

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Kingsley's Directory is the only complete work containing the name and address of every firm engaged in the following lines of business: Grain, milling, flour and feed, hay and straw, butter and eggs, fruit and produce, malting, brewing, distilling and poultry. New edition, thoroughly revised. Over 500 pages octavo, substantially bound in cloth. Indispensable to those who wish to reach the lines of business named above. Price \$3.50. Sent postpaid on receipt of price. Address

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A large copper digester, 22 ft. long, 4 ft. diameter, 8 ft. thick; perfectly new, for sale. Address J. EDWARD CRUSEL, P. O. Box 1796, New Orleans, La.

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Will sell or lease 240 acres of coal land adjoining a thriving Iowa town: two railroads crossing the land; owners engaged in other business. For further particulars address

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Seven thousand dollars will buy grain elevator plant and good mill, in desirable town, less than 100 miles of Chicago, that will pay 30 per cent. yearly on investment. Address

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Will sell or trade elevator in state of Kansas, in good condition: in a good part of the state: three railroads. Will sell for cash or trade for stock of goods or land in Illinois. Address

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One No. 3 Barnard & Leas Warehouse Dustless Wheat Separator and one No. 5 Excelsior Oat Clipper, Separator and Grader combined; both machines in good condition, about as good as new, for sale cheap. Address

IRVING W. FOX, Rochester, Minn.

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A book of information, catalogue describing property for sale in every county, and map of Florida (all new), mailed for postage, 6c. Address

H. W. WILKES, Florida Land Specialist and Deed Commissioner, Louisville, Ky.

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Two elevators, one at Medora, Macoupin Co., and the other at Fidelity, Jersey Co., Ill., are for sale. Both are in good repair, and in good grain country. Only 2½ or 3 miles apart. Will sell both to one man or separately; prefer to sell together. For full particulars call on or address

T. O. RULE, Illiopolis, Ill.

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A good elevator is for rent or sale. It is situated in the center of a fine farming country at the intersection of the Kansas City branch of the C. R. I. & P. R. R. and the main line of the C. B. & Q. Address or inquire of

H. E. JORDAN & SONS, Fairfield, Jefferson Co., Ia.

CORLISS ENGINE FOR SALE.

One Akron Corliss Engine, cylinder 16x30, for sale. This engine shows by cards taken that it has developed 124-horse power; rated capacity, 80 to 100-horse power with steam at 80 pounds; guaranteed in perfect working order. We have purchased another engine identically the same of larger capacity, made by the same parts, so as to handle our electric light department, which has been added to the oatmeal business. Will be sold at a bargain. Prompt shipment. Address

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Will sell one grain station at Harpster, Ill., on Illinois Central: has office and scales: one at Proctor, Ill., on Wabash Railroad; has office, scales, coal house and two grain warehouses of 18,000 bushels' capacity; and one at Gibson City, Ill.: has elevator of 25,000 bushels' capacity. A good crop of oats and corn is to be handled. This property must be sold. Address

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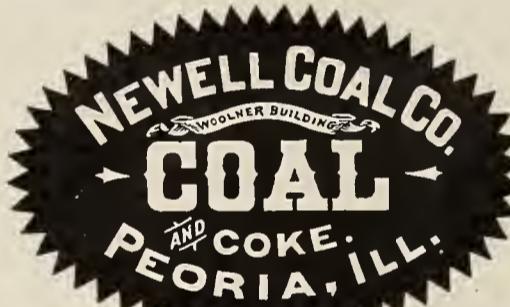
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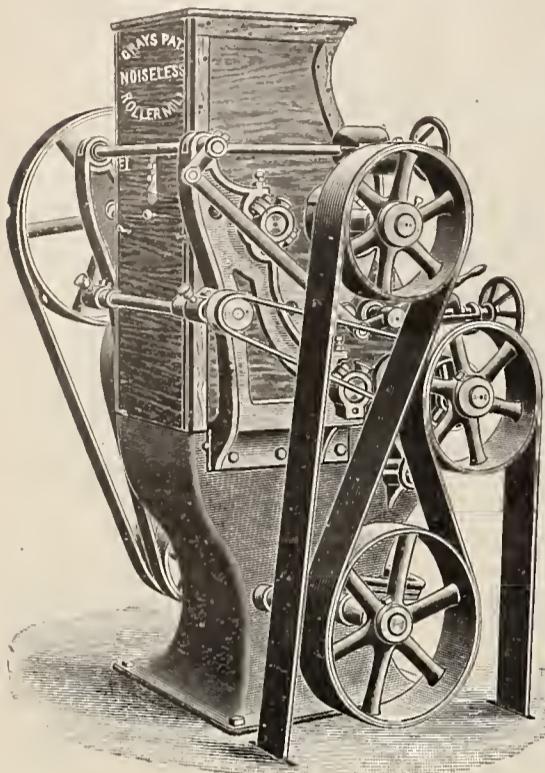
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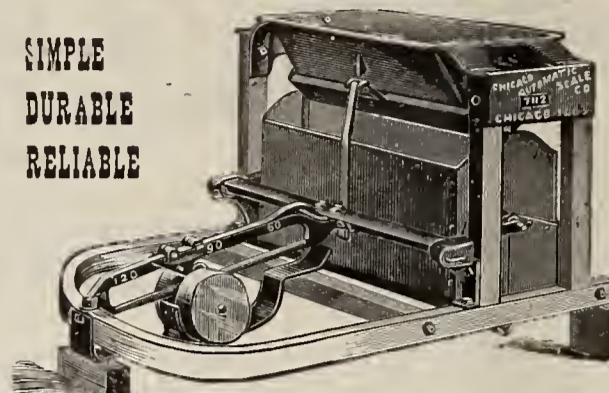
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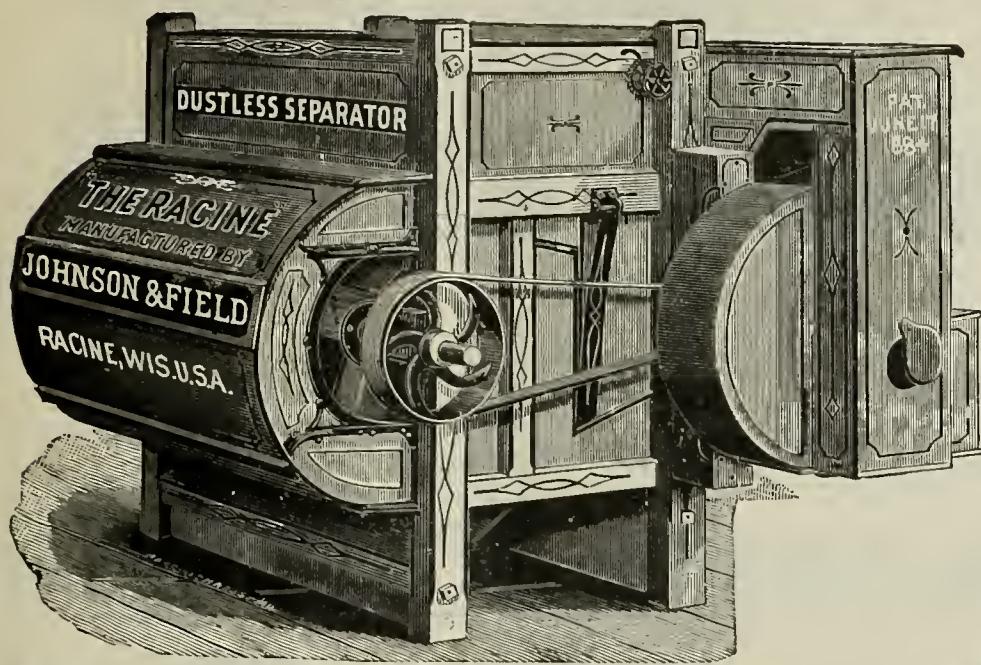
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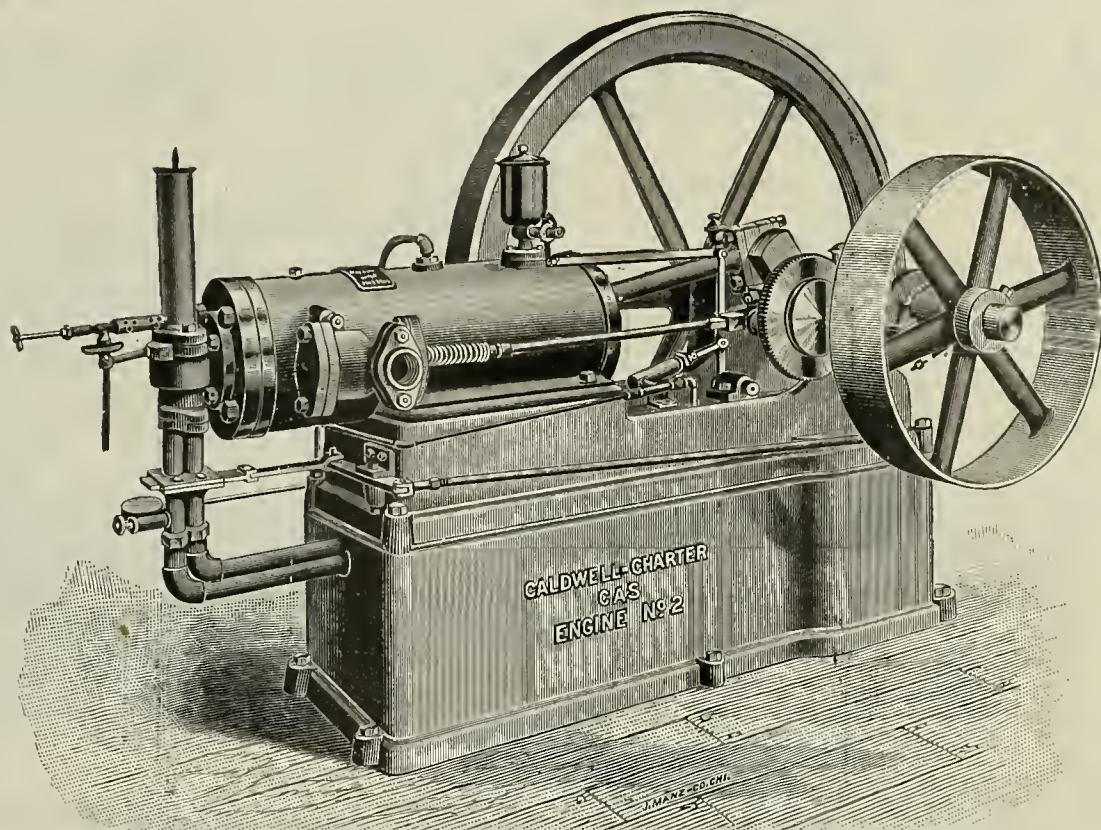


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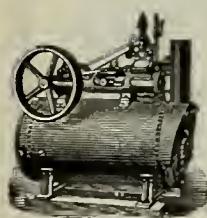
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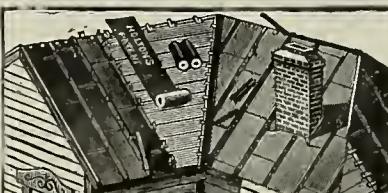
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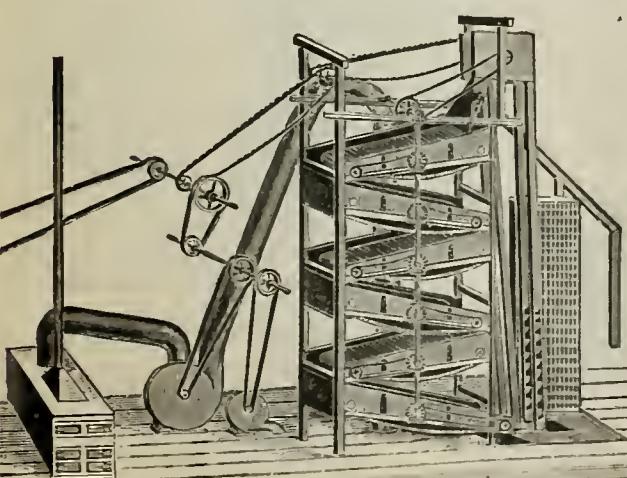
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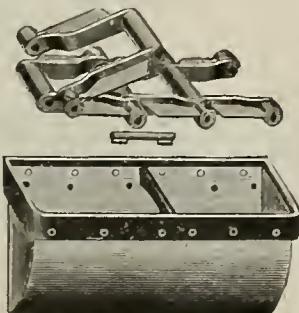
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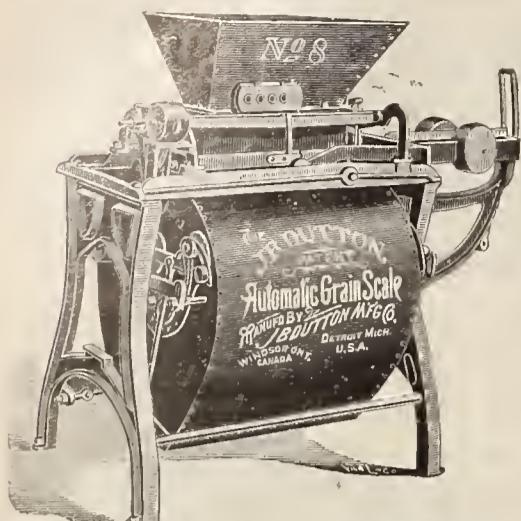
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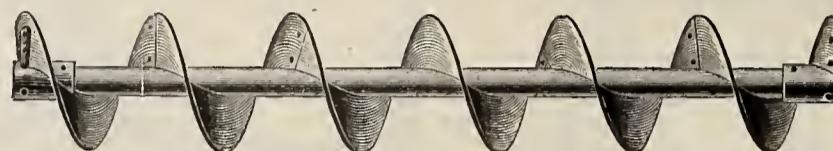
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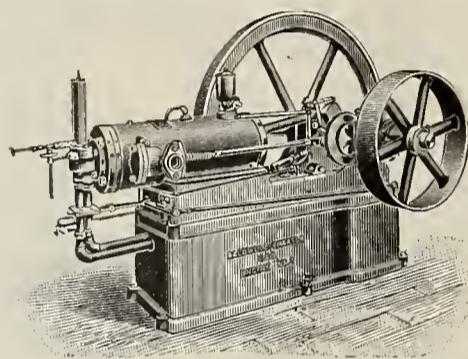
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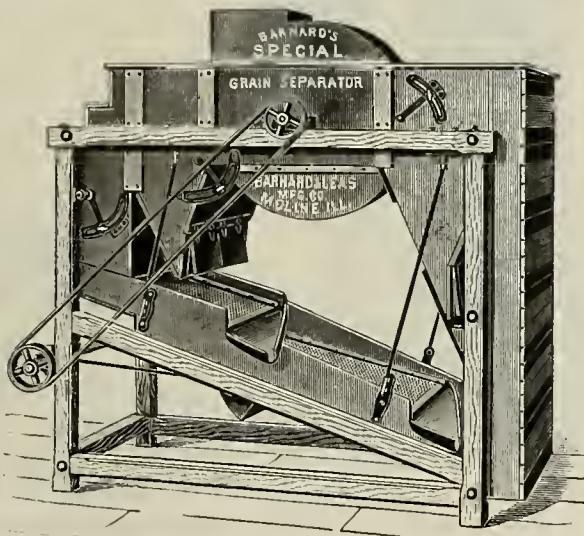
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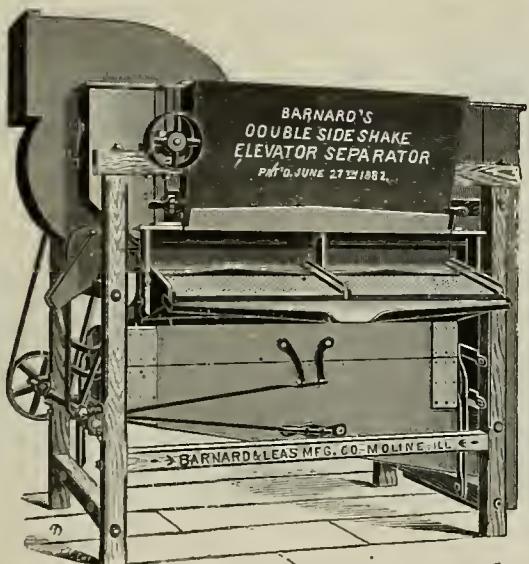
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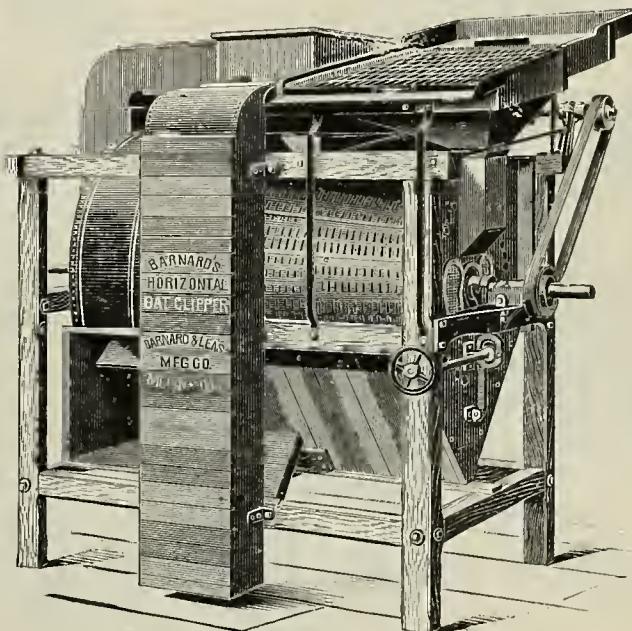


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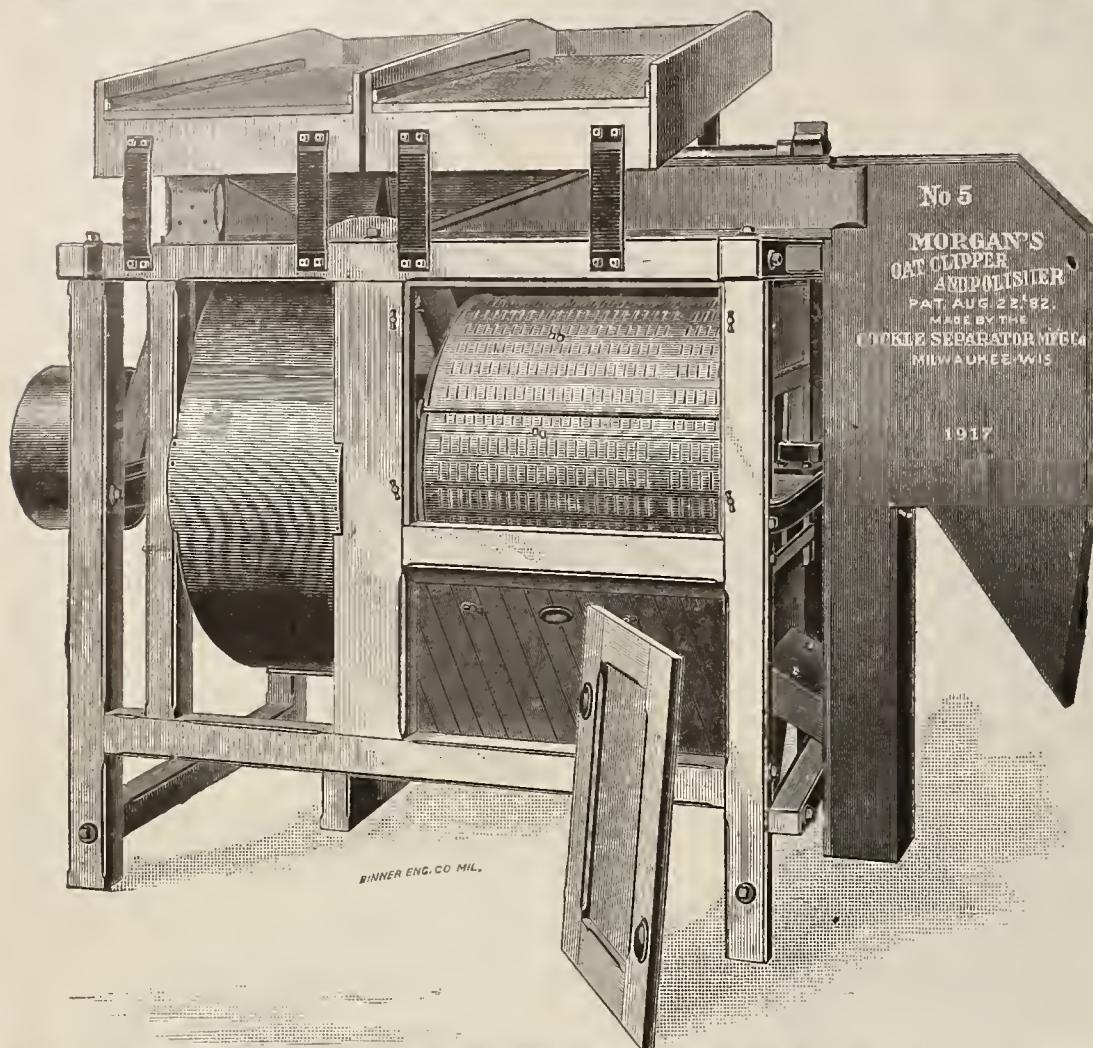
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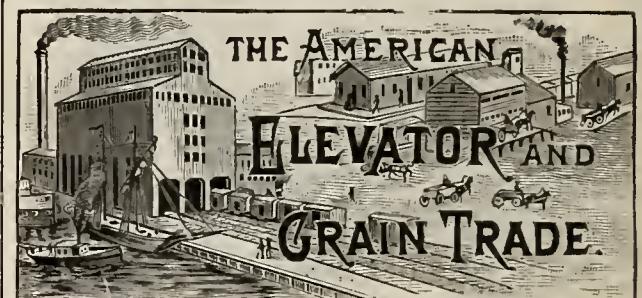
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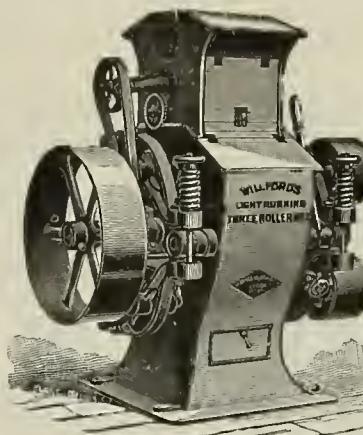
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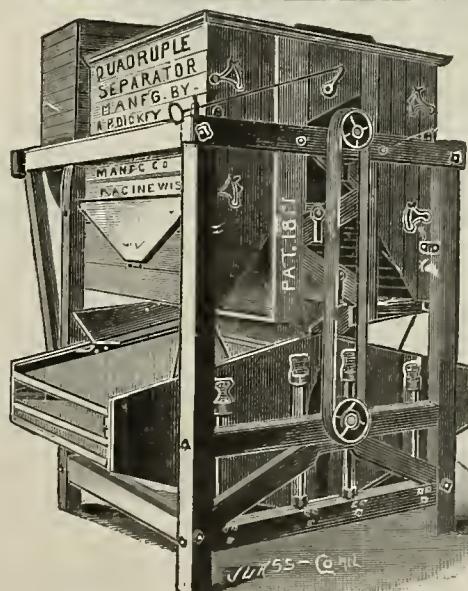
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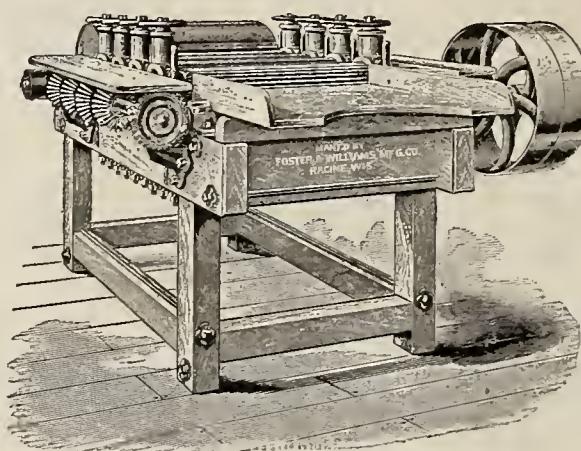
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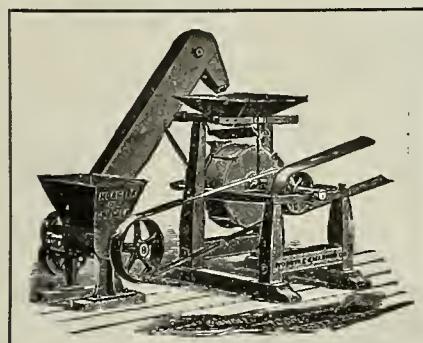
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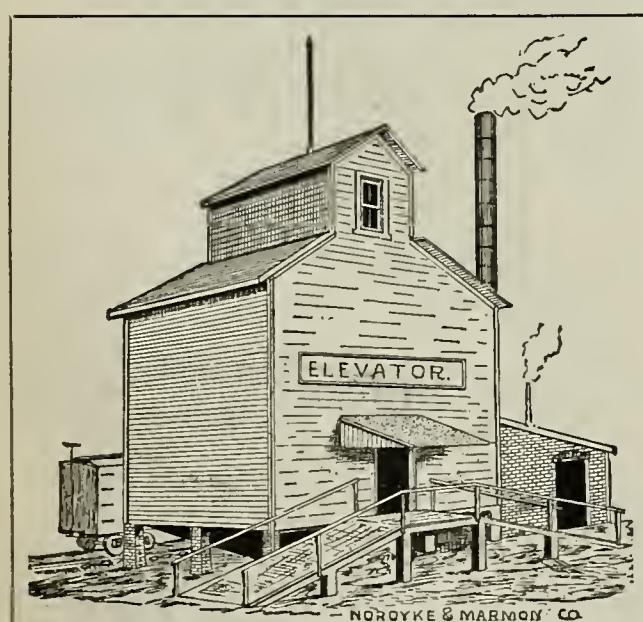
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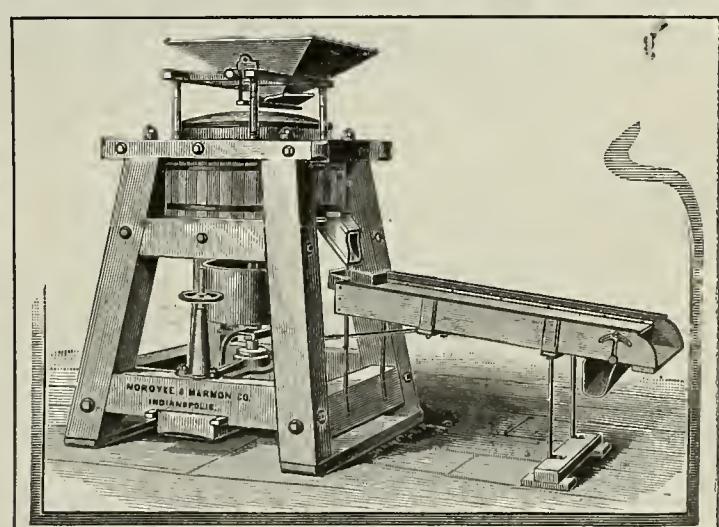
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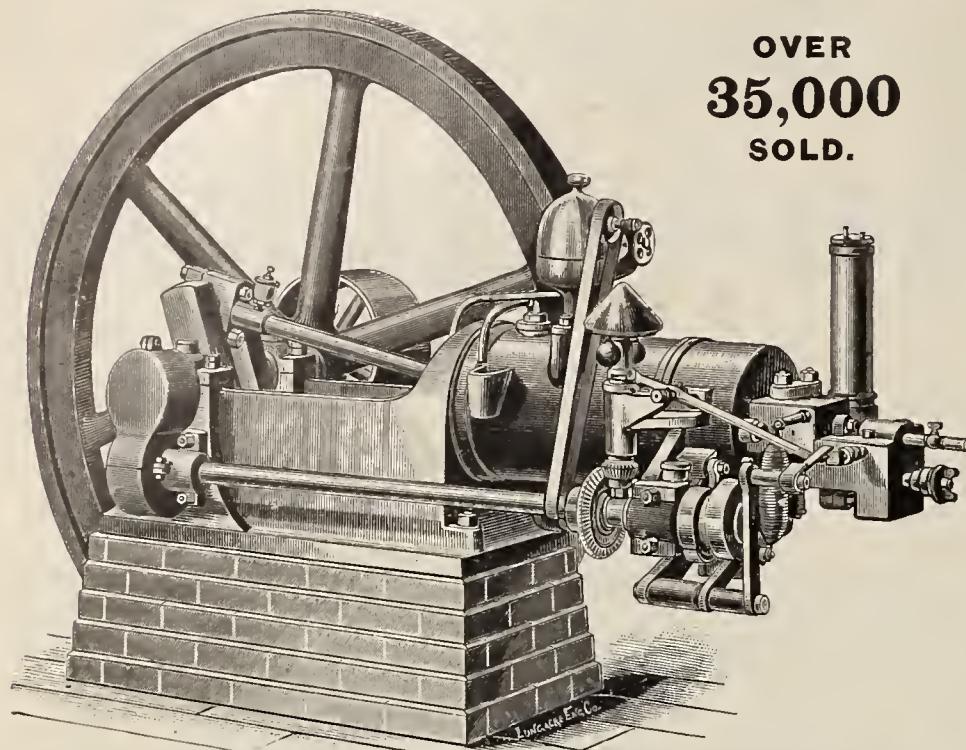
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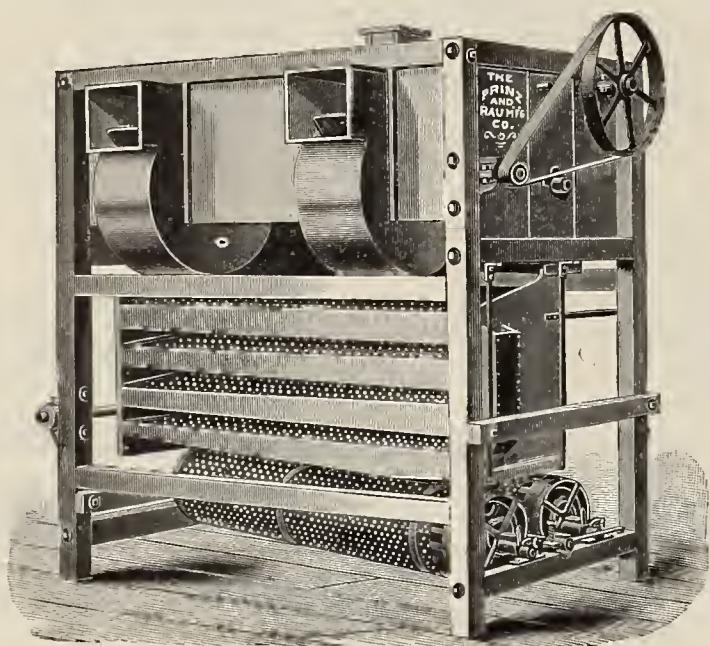
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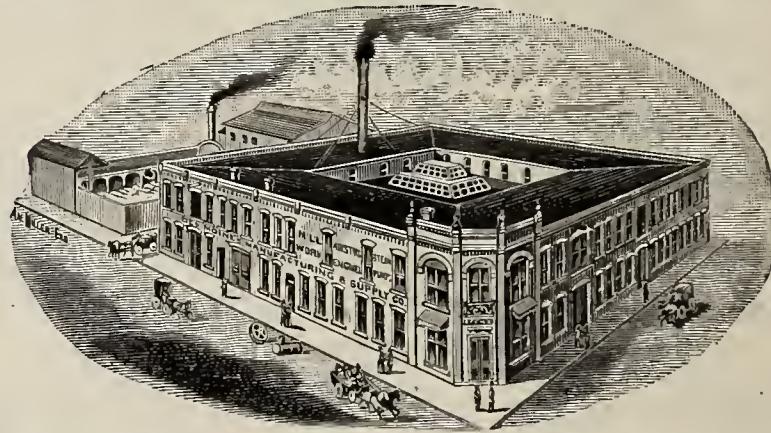
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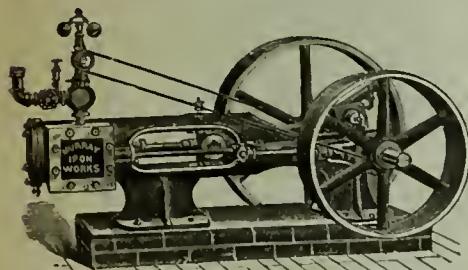
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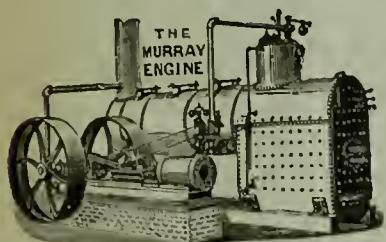
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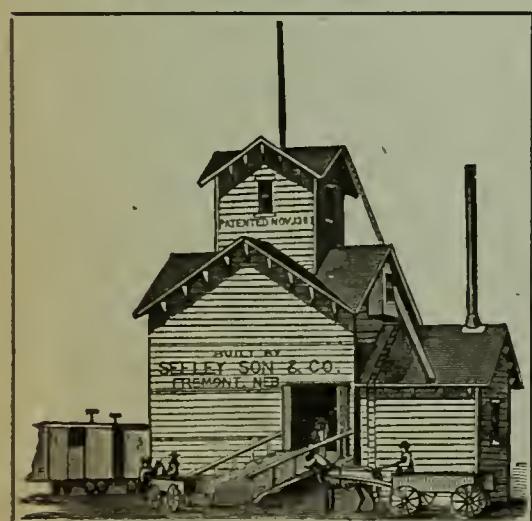
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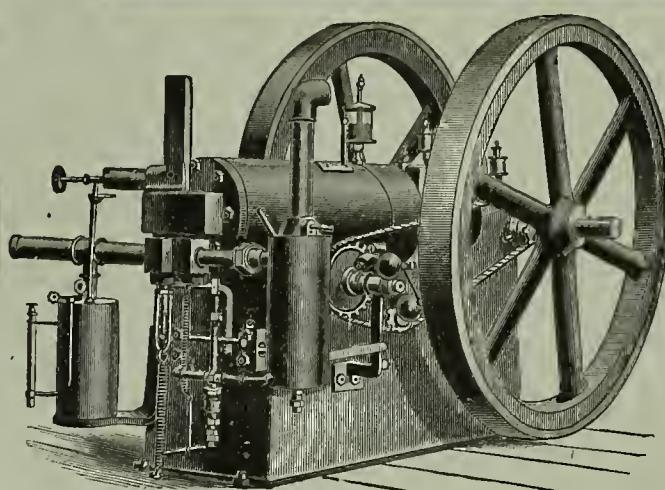
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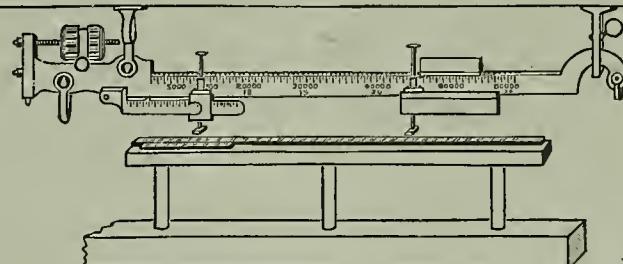
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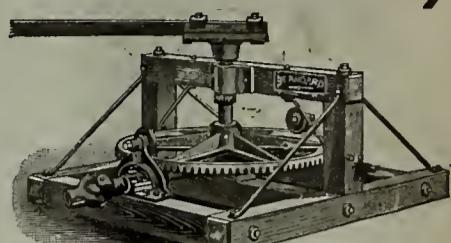
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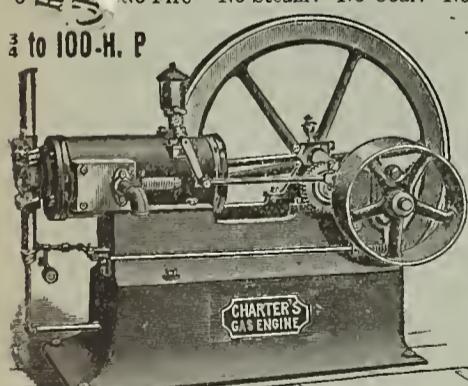
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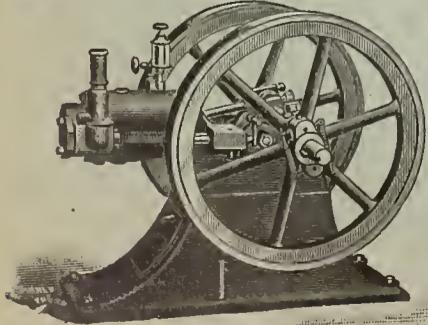
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